

CAMP CRAFT  
AND  
FISHING

CATHERINE T. HAMMETT





*Margaret C. Nelson*

CAMP CRAFT ABC'S

For Camp Counselors

---

by

CATHERINE T. HAMMETT

---

Illustrations by Zelda Atkins



" . . . to gain the joy of living  
In our Maker's out-of-doors."

GIRL SCOUTS OF THE U. S. A.  
155 East 44th Street  
New York 17, N. Y.

Catalog No. 20-609, \$1

Copyright, 1941

by

CATHERINE T. HAMMETT  
41 Orchard Street  
Pleasantville, N. Y.

Second Printing	- February, 1942
Third Printing	- October, 1942
Fourth Printing	- May, 1944
Fifth Printing	- September, 1945
Sixth Printing	- April, 1946
Seventh Printing	- January, 1947
Eighth Printing	- October, 1947
Ninth Printing	- January, 1949

---

All rights reserved.

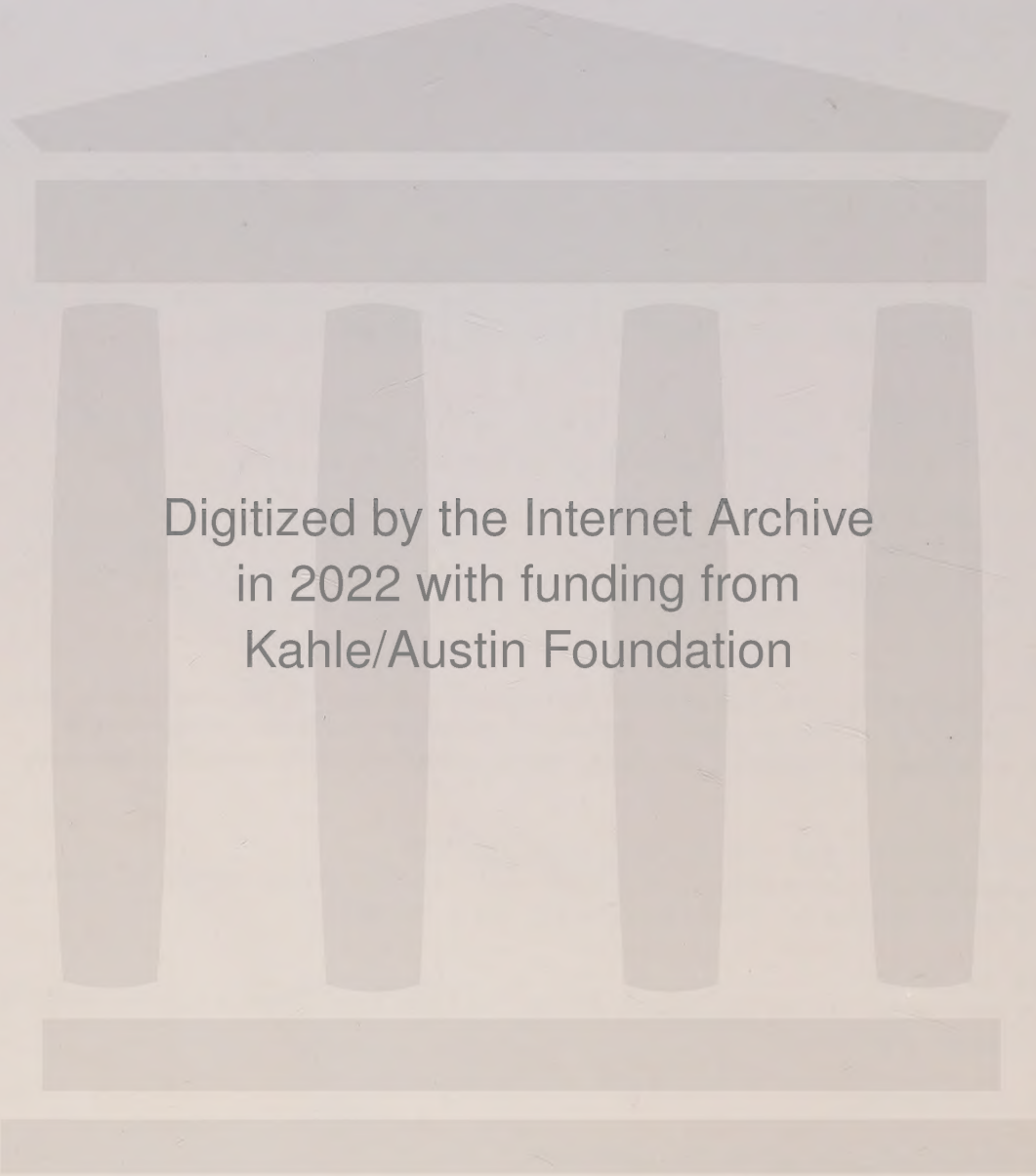
Reproduction of this book in  
whole or in part forbidden  
without written permission  
from the author and copyright  
owner.



## C O N T E N T S

---

WHY THIS BOOK?	5
SETTING THE STAGE FOR CAMPCRAFTING IN CAMP	6
CAMP LIVING AS A BASIS FOR CAMPCRAFT	9
EQUIPMENT NEEDED FOR CAMPCRAFTING	11
Tools and where to keep them; outdoor kitchens, kitchen furnishings.	
KNOTCRAFT	17
Getting an interest, learning how; whipping a rope; square knot, sheet bend, bowline, clove hitch, highwayman's hitch, other knots; progression in knot tying; some ways to use knots.	
LASHING	29
Getting an interest, learning how; square, diagonal, sheer, continuous lashings; first steps and progression in lashing; things to lash.	
TOOLCRAFT	38
Getting an interest, learning how; how to use a jackknife; how to use a hand axe; things to make with knife or axe.	
FIRE BUILDING AND FIREPLACES	49
Getting an interest; learning how; where to build, what to use; what kind of fire to build; how to build a foundation fire; cooking fires; camp fires; fire prevention; what to do in case of fire; progression.	
OUTDOOR FOOD	60
Getting an interest; facilitating cooking out; types of outdoor food; hike lunches; planning outdoor meals; types of outdoor cooking; progressive steps in cooking; using what is left over; packing; camp cooking gadgets, helps.	
PLACES CAMPERS LIVE IN AND HOW TO TAKE CARE OF THEM	81
Good "campkeeping" in cabins, in tents; wall tents; other types of shelters; temporary hike shelters; furnishings for tent or cabin.	
WHEN CAMPERS GO HIKING	91
What to wear, what to carry, where to go, on the way, back at camp; how to make a blanket roll.	
A CAMPCRAFT TOURNAMENT	94
CORRELATING OTHER ACTIVITIES WITH CAMPCRAFT	96
Nature in Campcrafting	97
Songs for Campcrafters	102
Arts and Crafts in Campcrafting	106
Campcraft in Story	109
GENERAL BOOKS FOR CAMPCRAFTING COUNSELORS	112



Digitized by the Internet Archive  
in 2022 with funding from  
Kahle/Austin Foundation



## WHY THIS BOOK?

Campcraft A B C's! What are they? For whom is a book about them written? They are the beginning steps in the art of being a good camper, those tricks of the outdoor world that each prospective woodsman must learn before venturing far into the wilds, or before attempting intricate cooking over glowing coals. This, then, is a manual for the camp counselor who is looking for help in teaching campcraft. The counselor who is faced with a group of eager campers ready to enjoy their camping experiences to the full knows that he must guide those campers in building fires so that they will always have fun building fires, or cooking so that what they cook will be a success and will lead to other cooking ventures. He wants to lead his campers so that what they do will lure them on to enjoy activities in the out of doors for years to come, and knows that a progression in skills and in activities, coupled with a safety point of view, will build the right foundation. This book attempts to point out some of those first steps in a progressive plan of leading in "campcrafting," the art of being a campcrafter. If the steps in the book seem too simple to some, the book is not for them; they may find many treatises on advanced camping and woodcraft; this is for those people who find most books on camping ignoring the "how to go about it" and the "what to do next." It will serve its purpose if it helps some counselor take the first steps himself, and bolsters up his ability to show youngsters the great adventure of learning to know and enjoy the out of doors.

This book is written especially for the counselor in a camp where the boys or girls have come



to live out of doors, but it is expected that many of the suggestions will apply equally well in a city situation where a group may utilize winter or spring days to prepare for hikes or summer camps. Included in the material are practical steps in learning and using camping ways and techniques, methods of interesting groups, and of presenting the activities in progressive steps. There is, of course, nothing that is really new; these are not the only ways of going about campcrafting, but all of these suggestions have worked somewhere for some person, or for some group of people. The material is really not that of the author, for she has learned from campers, from counselors, from fellow campers, and from books, and hereby acknowledges her thanks to that multitude of campcrafters who have made life more fun because of a kabob done to a turn, more comfortable because of a well-made blanket roll, more interesting because of some ingenious gadget, and merrier because of the spirit of adventure that urges one to make much of little, and to have a truly satisfactory time doing it!

No book of this sort can be complete. One campcrafter learns from another, or invents a little trick of his own. It is hoped that the owner of this copy will become a collaborator, will find benefit and pleasure in adding those campcraft ideas that he discovers, and will make this his own book by sketches, recipes and new ideas discovered along the campcraft trail.

#### SETTING THE STAGE FOR CAMPCRAFT IN CAMP

Probably the most ideal kind of camping is that in which a few people, a family perhaps, or a small group of friends, find a lovely woodsy spot far from other people, on the edge of a lake, and settle down to live there for a week or more. There is no thought of a "program;" the day is taken up with cooking meals, cleaning up, making the camp a more comfortable place in



which to live, fishing, hiking around, or sitting and talking, quite on the impulse of the moment.

Organized camps have tried to catch this same joy in their planning for summer camping experiences, but with the problem of giving camping to many children comes the problem of how to compromise with numbers, and still obtain simplicity. The problem is a difficult one; the ideal of the picture painted above is probably not obtainable in most large camps, but camp leaders can do much to achieve something of this way of living out of doors.

The first answer is to break up the big group of campers, to get the camp divided into small groups that live apart and that can do something about planning the things they will do, and the way they will live. When these groups are divided according to age, interest, experience or any other classification that makes for a somewhat similar group, a starting point for campcraft and camp living is easily found, and the point of progression determined.

Probably even before this dividing into groups, there is need of a thinking through of the objectives of the camp; why does it exist? Is it to get children out into the fresh country air? To give them three square meals a day? To give them a chance to roam over meadows and through woods, to swim, to sit around a campfire? Yes, all of these, but probably more! If we are to come anywhere near that ideal picture of real camping, the aim of the camp must be to have camping - the fun of living out of doors - the main reason for the camp. The directors and the sponsoring committee, if there is one, must be convinced that living out of doors, with all the glorious





things that can happen only in the out of doors, is the most important thing. Other things come as part of the living, or are left for winter activities in town. A camper's time in camp is all too short, even for the fortunate ones who may be there for eight or ten weeks; there is so much in Mother Nature's treasure chest to be had for the searching that it is important to concentrate on enjoying out-of-door activities.

If, then, camping is to be the "theme" of the camp - (and we shall assume that it is in the camps that will need this book!) - the next thought is to the staff. Have the members of the staff been selected because they are campers at heart? At least, if they are not all skilled in camping, have they the desire to be campers, an interest in the campcrafter's way of living? When, and probably only when, a camp decides that this is the first requisite of a counselor, will it begin to do real camping. There may be counselors who are especially skilled in waterfront, in nature, in crafts, in music, or any of the highly specialized parts of the camp program, but these, perhaps more than any others, must also have that urge for camping, and be able to adapt their special program skills to a camping program. In that ideal situation, the one who does the best crafts job is the one who can help to make the best bed of boughs, or who will turn his hand to strengthening the table made of trees and saplings, and it will never be that from ten to twelve he will hold forth with a "class."

Most important of the counselors will be the ones who are directly in charge of the small groups - tent counselors, group leaders, unit heads, or whatever they may be called. These are the real leaders of campers, theirs the toughest job in camp, for there in the small group will be the beginning of learning to be good campers, or the growing of campcrafters into real woodsmen. This book, we feel, is especially theirs!



## CAMP LIVING AS A BASIS FOR CAMPCRAFT



Just being in a camp should be the beginning of campcraft; there is the challenge of making oneself comfortable, of taking care of oneself, of making much out of little. If too much is already provided in a camp setting, if too much is done for campers, campcraft will not flourish.

In organized camps we must provide some equipment, ready for the influx of fifty or more inexperienced and young campers, but we are sometimes guilty of providing so much that there is nothing left for the camper to do to make himself comfortable. What are the essentials for that first day and night? - shelter, a place to sleep, some facilities for personal cleanliness, provision for eating. Does it seem possible that other refinements - a better place to wash, a place to hang one's towels, a rack to keep shoes off the floor or ground, a frame for mosquito netting, might come later? It is possible to wash adequately with a basin on the ground or on an improvised box for a day, or to hang a towel on a bush until something better is made. But, you will say, there will be little time to make these things; tomorrow, crafts or nature or basketball or archery classes will begin! Is it inconceivable that these activities might not start for several days, while the whole camp begins to camp? There are campers who would say that they should never start - as classes! Could not the crafts counselor be free to help campers do a better job of repairing a towel rack, or choosing a forest kitchen site, or tackling a tree stump that must be removed from a newly laid-out path? Could not the nature counselor be helpful in suggesting where one might go for good forked sticks for a toasting fork or for an upright for a mosquito tent?

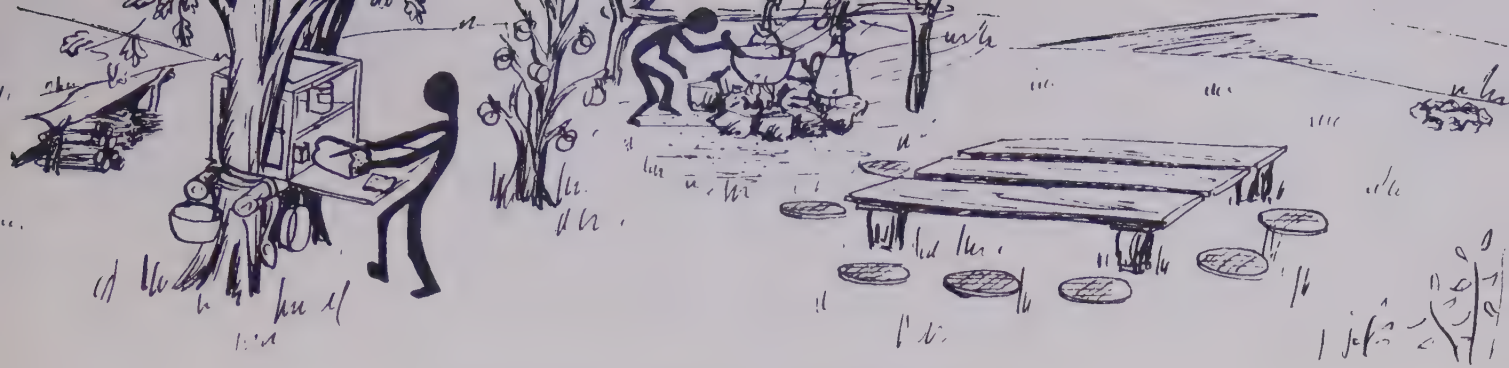
The job of settling in will never be finished; it will be renewed in some form whenever a new group enters the camp. Even at the end of a summer a good campcrafter will be making a new gadget, figuring some way to make a handier arrangement for the tools.

Some boys and girls, of course, will get more fun out of settling in a tent, changing beds around, or fixing up the grounds than will others, but most groups are keen about the place in which they live, and will enjoy living there more if they have a hand in establishing it. The secret is for leaders to plan time to do this, to consider it part of the program, to gauge the activities to the abilities or the desires of the group, to provide good leadership to see that this living in camp really happens.

The program - well, it will come by itself! If the basis of camping is this living out of doors within a happy group, the other things will gradually appear. Some one will mention the need for a good case in which to carry his camera - page the crafts department! Some one else may become absorbed in fixing a fern garden, or a bird bath - where is the nature department? The axes may not be sharp enough to chop down the green sticks for cooking out - the tool shop is in demand. While raking around the wash house, a group may discover an ant hill - must they stop watching the bustling there to dash off to baseball, or is the program so arranged that they can lie on their stomachs all morning, if the watching proves fascinating enough? Is there time to plan to cook out, and is it easy to arrange for rations for a woods lunch?

All these possibilities must be in the planning ahead that is done by the staff - a rigid program will not allow for this living in camp.





### EQUIPMENT NEEDED FOR CAMPCRAFTING

We cannot expect all this interest in campcrafting to carry itself along without help and guidance from the counselors; neither can we expect that it will last long if the tools with which to work are not easily accessible and available at the time when a great idea strikes! We are very apt in our camps to provide canoes for paddling, balls for games, but to forget that one needs tools for campcrafting just as much as for more specialized activities. One secret of campcrafting in a camp is, of course, the leadership, and another is having the right kind of tools handy, available for each small group at all times. If one has to walk a quarter of a mile to the other end of camp for an axe or twine, one is apt to forget the need for improving the forest kitchen and turn to something nearer at hand. If a group must ask for the outdoor cooking equipment days in advance, in order to have the use of the camp's one set of kettles for such activities, it is likely to be easier and pleasanter to eat in the main dining room. Tools to work with and equipment for cooking out need not be expensive items for a camp; they should be carefully thought out, and enough of the essential things should be available to spread around the camp.

### TOOLS AND WHERE TO KEEP THEM

No list of tools will fit every occasion, or every camp, so each camp must think through its own needs, but here are suggested items that might be in every small camp or unit that is doing the average amount of simple living out of doors.

Jackknives - one for each camper, if possible; one owned by each camper, if possible; at least several in each unit.

At least one small hand axe - better two or more; an additional large axe (weight depends on age and experience of the group).

At least one hammer, strong enough to do fairly heavy work, but not too heavy for the group which will use it.

A crosscut saw that is tough enough to be used by novices on boards or branches.

Knife-sharpeners - the small size for jackknives; at least one, but better to have several; a large one for axes, etc.

A small can of machine oil.

A box of assorted nails.

Assorted sizes of sandpaper, especially sizes for whittling.

String and Binder's twine.

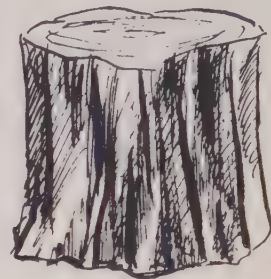
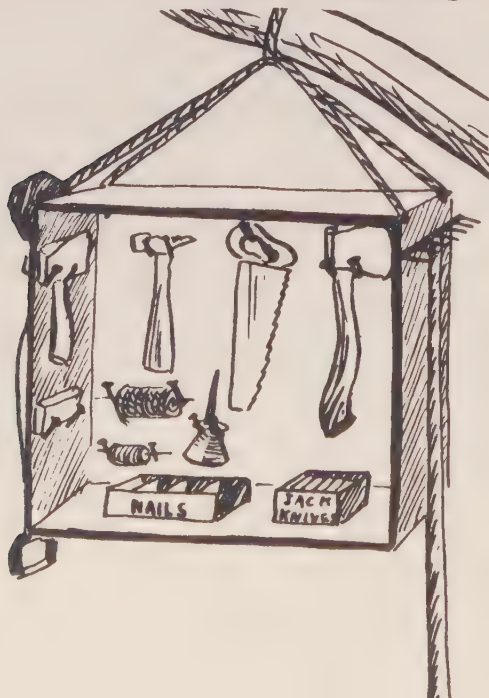
A good sturdy chopping block. (Ask the man who provides fireplace wood to be on the lookout for these, if they are not easily available in your own woodpile.)

A small shovel. (The army trench shovel is good)

A rake.

A sawhorse (made of old boards).

Other tools that might be available for a group to borrow from the central toolhouse are a plane, a rip saw, a bucksaw, a post hole digger, bigger shovels, tools for clearing brush, a grindstone.



Once having acquired the tools, a place to keep them is essential; a good packing box may be the tool chest, with a place for everything, and so a good chance of everything being in its place! This makes a good project for the settling-in days; notice the chances for planning ahead, for getting interested in whittling, for beginning the habit of orderliness!



## OUTDOOR KITCHENS

Some type of place where the group can cook out is essential to campcrafting, for so many projects may be worked into the need and fun of providing food. Some camps provide outdoor kitchens in each small camp or unit, and definitely plan to have each group cook one or two meals a day there. Other camps have found it successful to have a trail or forest kitchen adjacent to the living unit so that cooking out may be an easy choice of the group. This need not be an elaborate kitchen to be very effective. Many people feel that it is best to have a very simple kind of a hike kitchen, rather than one with elaborate stone stove. This comes nearer to being related to the type of cooking place one would have on a family camping trip, or a hike. If, however, you are planning to have from twelve to thirty youngsters really enjoy cooking out, you will need to provide adequate cooking facilities for small groups. The developing of trail kitchens is a fine project for the campers, and only the base essentials should be provided before they arrive; if the camp is an all-summer camp, nothing should be provided, but the group should have all the fun of making a kitchen; in a camp open for two-week sessions, it may be deemed advisable to have something started, so that the first two weeks' group need not spend all its time building a fireplace. Keep it all simple, anyway, and fix it so that incoming groups can change the scheme, and add to the equipment; have nothing so permanent that its permanency sets the group in a certain way of doing things. Plan for groups of eight to twelve to cook at one fireplace.

What is in the kitchen will, of course, vary with the camp and the campers, and with what is available, but here are suggestions:

Provide the equipment for cooking that will make the simplest things possible:

A frying pan (a 10-inch one is good for a group of 8-12).

A kettle big enough to make cocoa or a one-pot meal for the group (a 3-quart kettle for 12 people).

A large knife - to be supplemented by jackknives, individually owned, or from the tool chest.

A large spoon, and a handmade wooden spatula.

A pail for water and for washing dishes.

A cup, plate, fork and spoon for each person (suggest these in the individual equipment lists in camp folders).

The following may be added by groups as needed:

Good green sticks for toasting and for bread twists, etc. (If the supply of green sticks that can be cut is limited, the group may have one good set that carries thru a two or three week period. Get each member to cut one at the beginning of the stay, to keep throughout his stay in camp. Soak in water before using.)

Glass or tin can containers for staples, such as sugar, flour, salt, pepper, cocoa, etc.

Tin can stoves, as needed, or other kettles made from tin cans.

Simple cooking fireplaces (see page 55).

Add a beanhole, a reflector fire, etc. as the group progresses.

Include in the fireplace a place to heat water, or build a separate water heater.

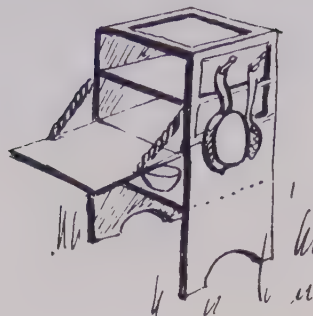
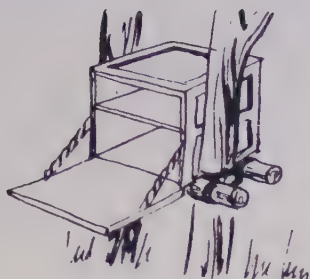
Make the fireplace fit your needs; make it fit the kettles you have.

Additional pails for dishwashing.

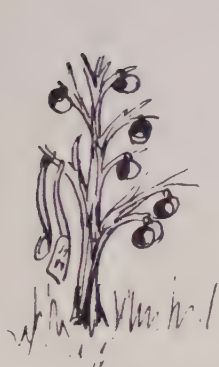
As you progress, you will want a place to pour waste water, perhaps an incinerator to burn garbage, a good woodpile that is protected from the weather, a dining space. For occasional meals make the "table" a marked-cut place on the ground with stones for seats; for regular meals it is important to have some "formal" way of eating, rather than just picnic style; a table top on pegs about twelve inches off the ground is a good plan.



## Kitchen "Furnishings"



A cupboard for dishes, kettles, salt, sugar and the like may be made of packing boxes, or built to order. Here is a good portable one. The front lets down to make a work table. Cover the top with water-proof material.



A cup-tree



A pan-tree



A good woodpile



A simple fireplace



A drain for dishwater

(See pages 55-57 for fireplaces)

Sketch Your Plan of a Trail Kitchen Here

---

Other Ideas for "Furnishings" for Kitchens

TO ADD PAGES—



FOLD HALF INCH  
ALONG EDGE AND  
PASTE ON BINDING





## KNOTCRAFT

Knowing how to tie good, secure knots is as much a part of good campcrafting as it is of good seamanship; one is often as dependent upon the knots he has tied in the woods as he would be at sea.

There are many good books on knots and knot tying, so only the most usual knots are shown here. An exploratory glance at such books will reveal many interesting steps to which the campcrafter may progress.

It is more important to know WHY you tie a certain knot than to learn a long list of its uses. Knots are designed to do certain jobs, and there is generally the right knot to do a job the right way. There are knots that are used for joining ropes or strings or cords; some knots are stopper knots and keep ends from ravelling, or ropes from slipping through a hole or ring; a loop knot provides a loop in a rope, and a slip knot a loop that will tighten when pulled taut; there are hitches for securing ropes; knots for shortening ropes, and slings for holding articles, like cans. The campcrafter who knows at least one of each kind of knot will have a kit of tools ready for use at the slightest need.

Good knots can be TIED EASILY, WILL HOLD FAST, WILL NOT JAM, and CAN BE UNTIED EASILY. This last qualification is what makes a good knot different from your own special variety of several knots tied one on top of another! That variety of yours may hold, but are you sure you can get it undone easily or must you cut that valuable piece of cord?

### GETTING AN INTEREST

The desire to learn to tie knots may come in many ways, generally with an urgent need! A shoe string breaks, the tent group wants some place to hang wet towels, or the campers are going on an overnight hike, and there is need to learn how to tie a pack securely, or the net for catching tadpoles needs repairing - you need a knot! At the waterfront, around the tent, in the craft shop, on a fishing trip, there will be many times a knot will come in handy, and the counselor who knows how to tie knots can capitalize on the campcrafting need at once.

Some camper may already know a few knots, and want to demonstrate his or her ability, or a question may make an opening for a counselor to suggest that this might be a good time to learn a certain knot to take care of the situation.

### LEARNING HOW

This is a good time for a group to sit down together, get down to the hard facts of learning how, and then practice until individuals are adept.

Individuals, of course, may follow directions from books, but probably a more effective way is to have some one who already knows how guide the beginner through the first steps, then leave him alone to practice and try out what he has learned.

The most effective piece of equipment for knot tying is a good-sized rope, one that is long enough to do something with; a 3/8" rope about five or six feet long is a good size. Avoid having little pieces of rope, say two to three feet long; these have little relation to the job to be done,



and the beginner is apt to get accustomed to using both ends of the rope, without having to figure what to do with the long length that may be hitched to a horse, or boat, or something similar.

Demonstrate, when possible, the actual use of knots, and try using various sizes of cord or rope, once the campers have the knack of the knot.

Try to get them to see the way the knot looks when it is finished, and to figure out what makes it hold or slip. Once one has figured the "whys" of a knot, he is not likely to forget how to make it.

To test the beginners, have a quiz that can be answered by tying knots - ask what you would use to tie a cart, to start a lashing, to mend a broken cord, to lower a heavy object, to tie a package, and so on.

### HOW TO GO ABOUT KNOT TYING

#### WHIPPING A ROPE

Before you go far into fussing around with ropes, you will discover that the end has an unpleasant way of raveling out. Being a thrifty camper who knows he must conserve all bits of equipment, and being a campcrafter who wants a neat-looking job, you will want to learn to preserve that rope before it gets too frayed for use or looks.

#### Temporary Ways

Wrap a piece of adhesive tape around end.

Tie a small piece of string tightly around end.

Make an overhand knot in the end, if the rope or cord is small enough. (Makes a bulky end, tho.)

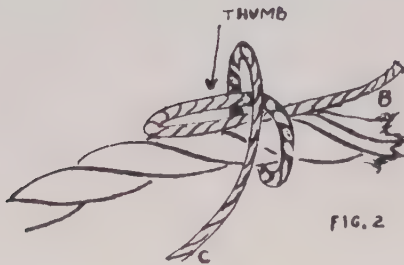
### A Permanent Way - Whipping the end

You will need a piece of cord or string about 12 inches long for each end.



Make a loop of one to two inches with one end of the cord or string (A), and place it on the end of rope, so that it lies away from the end of rope. The short end of cord (B), and the long end (C) should hang off the rope's end. Hold loop on rope with one thumb.

(Fig. 1)



Holding thumb near end of rope, start winding cord (C) back down the length of rope, away from the end, being sure to leave the short end (B) hanging off the end of the rope.

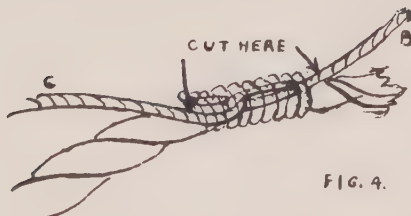
(Fig. 2)



As you wind neatly and tightly away from end, be sure you catch the loop (A) under the winding, letting your thumb slip off as you secure the cord.

Just before you reach the end of the loop of cord (A), stop winding, and tuck the end (C) with which you have been winding into the loop (A) and pull taut.

(Fig. 3)



The short end of cord (b) should be still hanging off the end of the rope. Now pull this end (B), and you will discover that the loop (A) with the other end of cord (C) is slowly disappearing under the winding. Pull until you figure that the loop is about halfway down under the winding (Fig. 4), and then cut off both ends of cord, close to winding.

If you have wound firmly enough, you should not be able to push the whipping off. Try it! If it comes off, try again, winding more tightly.

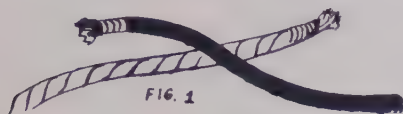
---

Seamen have another way of whipping which is done with a needle and string. Progress to that sometime!

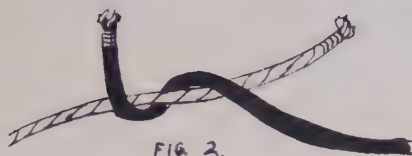


## SQUARE KNOT (sometimes called the reef knot)

This knot is used for joining two ends of rope or string of approximately the same size or thickness. Use it to tie up a bundle or a bandage, to mend a shoestring, or to make a long rope from several small pieces.



Take one end of each rope, one in either hand.



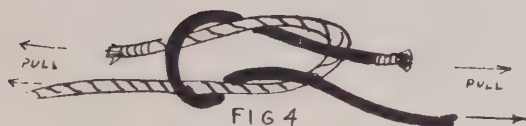
Cross the end in the right hand over the end in the left hand (Fig. 1), twisting it back, down and up in front, so that you make a single knot, and the end you started with is now in your left hand.

(Fig. 2)



Now take the end that is in your right hand and bend it over to the left, so that it makes a loop, and lies along the knot already made.

(Fig. 3)

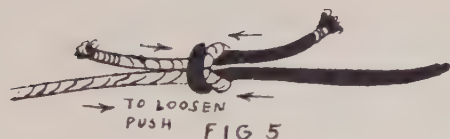


Look closely, and you will see that there is only one place for the other end (now in your left hand) to go, and that is into the loop you have made.

(Fig. 4)

Take hold of the knot on both sides, and tighten by pulling the ends in opposite directions. (Fig. 4) To loosen the knot, take hold in the same way, and push toward the center of the knot.

(Fig. 5)



Look at the knot: Does it look "square?" Each piece of rope should double back, and lie alongside of itself, going in and coming out.

(If you are left-handed, just reverse the process - it doesn't matter)

## SHEET BEND (to join two ropes of unequal thickness)

When you have two ropes that are not of the same thickness, a square knot will not hold them, but if you will give the square knot an extra twist, it will become a sheet bend, and will hold.



FIG. 1

Make a square knot in the ends of the two ropes, as above. (Fig. 1) Pull the ropes, and you will see that the smaller of the two ropes will not hold, but slips out, so the thing to do is to give that smaller rope an extra twist, so it will hold.

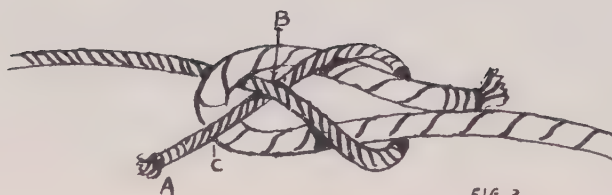


FIG. 2

Take the end of the smaller rope (A) and cross it under the other piece of the same rope at (B), and then up and over the loop of the bigger rope at (C). This will make one end of the small rope on top, and one underneath the loop of the bigger rope, and as you pull the knot tight this extra turn will hold that small end in place. Be sure to make the extra twist with the smaller rope. (But try it the other way, if you want to see what will happen!) (Fig. 2)

---

There are many ways to make a sheet bend. Try finding some others. This way relates the knot to the square knot, which seems sensible, since it is the knot you use if a square knot is not practical.



## BOWLINE

Use when you want a loop in the end of a rope. This loop will not pull tight, but will remain the size you made it. Use it to slip over a peg or hook, or make the knot itself around a post or pole.

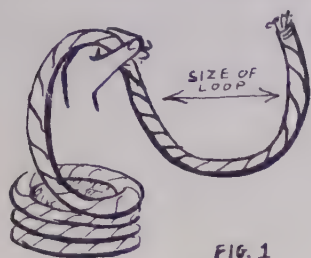


FIG. 1

Work with just one end of the rope; the other end may be tied to something else, or may be a coil or long length of rope.

Judge how big a loop you want, and place left hand at about the place you want the knot to come. Let the rope lie across the palm of your left hand. (Fig. 1)

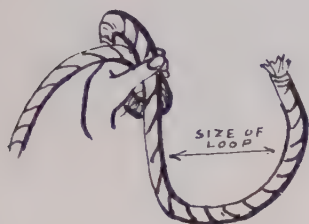


FIG. 2

With the right hand, make a loop up and back of the fingers of the left hand, coming down in front, and catching the rope with the left thumb as it crosses over. (Fig. 2)

Let the fingers slip out of the loop, and take the end of the rope in right hand, holding at point (A) with left thumb and finger. Pass the end of rope up from underneath into the small loop. (Fig. 3)

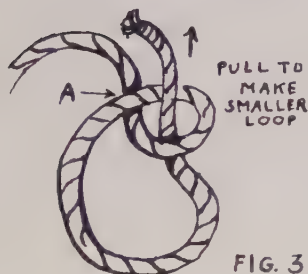


FIG. 3

Pull this end to make the main loop of knot the size you will want it, and then pass the end in back of the standing part of rope and back to the front, and down into the small loop again, so that it lies beside itself. (Fig. 4)



FIG. 4

Take these two pieces of rope in one hand, and the main part of rope in the other, and pull in opposite directions to pull knot tight. (Fig. 5)

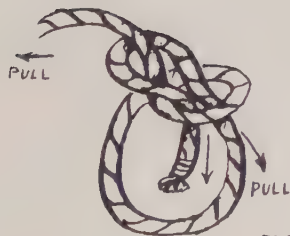


FIG. 5

If you want that loop to be around something, as around a bar, pass the end around the bar before you put it through the small loop; pull it as tight as you want, then proceed as above. (Fig. 6)



FIG. 6

Sailors learn to make this knot with one hand as they hold on to the rigging with the other. Perhaps you will want to progress to that!

## CLOVE HITCH

Use this knot to make fast an end of rope, as in starting a lashing, or to tie a rope to a post. Avoid using when other end is tied to something movable, as a boat or a horse, as movement tends to loosen knot. A clove hitch will not slide up and down on post, but will stay in place when tight.



FIG. 1.

Take one end in right hand, letting rest of rope lie across left palm. Pass end around the back of post from right to left, and back to the front again; cross it over the part in left hand, making an X (Fig. 1). Hold that X loosely away from the post, with thumb on top, index finger under the X, pointing to the right.



FIG. 2.

Make another turn around the post, from right to left, this time lower than the first turn, bringing end around and under the X, between the two turns, so that the end points to the right (or in same direction finger pointed), and the long piece of rope leads off left. (Fig. 2)

Pull these ropes in opposite directions. (Fig. 3)

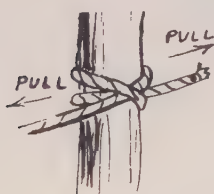


FIG. 3

You will want to pull the long end directly from the center of the knot; to do so may require moving knot around the post. To do this, loosen knot by pushing both ends of the rope toward the center of the knot at X. Then swing knot around until it is in desired position.

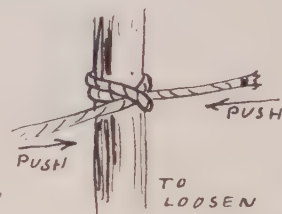


FIG. 4

To make a clove hitch on a horizontal bar, follow the same general directions, starting by passing the end over, and in back, of bar. (Fig. 5-6)



FIG. 5.

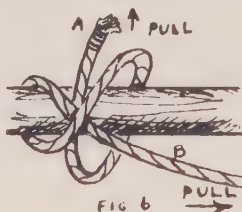


FIG. 6

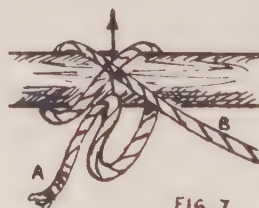


FIG. 7



FIG. 8

If you want to be able to undo this knot quickly, double the short end, and slip under loop at X, instead of pulling through. (Fig. 7) Pull end B to tighten. To untie, pull end A (Fig. 8). (See page 86)



## HIGHWAYMAN'S HITCH

Use this knot when you want to make something fast, but also when you would like to undo the knot quickly and easily, to make a quick "get-away!"

(Guess why it is called what it is?)

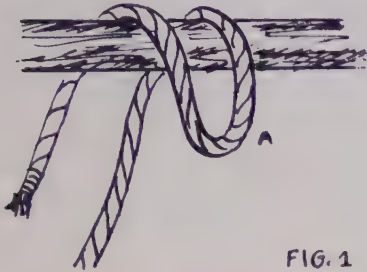


FIG. 1

Double the end of the rope, and place the loop (A) in back of the bar, leaving at least ten inches of the shorter end, and then bring the loop forward, down in front of the bar. (Fig. 1)

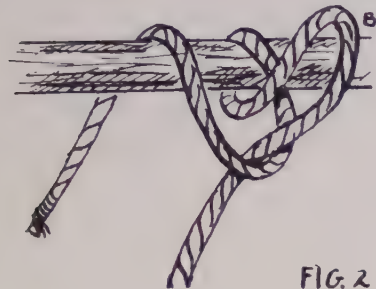


FIG. 2

Hold the two ends with one hand; reach through the loop with the other and pick up a bit of the longer rope, pulling a loop (B) through the first loop (Fig. 2), still holding the short and long ends, and letting the loop (B) of the long end slip through the first loop (A) loosely.

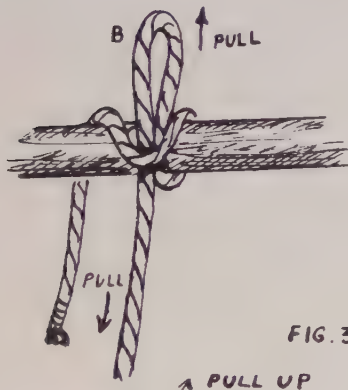


FIG. 3

Tighten by pulling down with the two ropes held in the hand, and by pulling the new loop (B) firmly back toward the bar. (Fig. 3)

When this part is tight, reach through the second loop (B) and pick up a loop of the shorter end of rope, pulling this new loop (C) through the second loop. (Fig. 4)

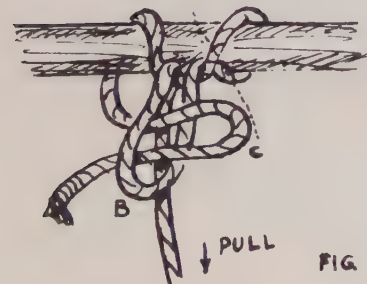


FIG. 4

Let go of the shorter rope, and tighten knot by pulling longer rope tight. This tightens the second loop (C), and holds knot firmly in place.

(BE SURE to pull tightly at step 3 (Fig. 3) and to make the third loop (C) long enough to stay in place.)

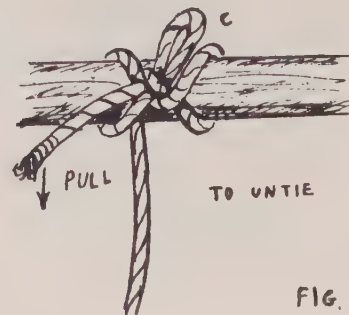
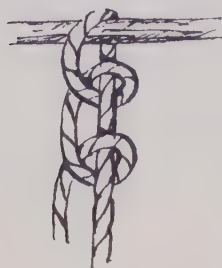


FIG. 5

To untie, (as you dash back to your horse and make your get-away!) yank on the short end - and there you are! (Fig. 5)

## OTHER KNOTS

Here are a few other knots that you may find useful. You can figure how to make them by the pictures.



Two half hitches

Use to make rope fast to a ring or a post.

One half hitch is often used to give extra holding power to a knot.



Overhand knot

Use to keep end from ravelling, or as a "stopper" at any place in rope.



Timber hitch or Archer's knot

Used in stringing a bow, for hauling lumber, or to start a lashing.

## PROGRESSION IN KNOT TYING

Remember the types of knots, as listed on page 17, and learn another knot in each classification. Look up a good knot book, and figure out a few knots that look useful or interesting, and learn them from the pictures.

Good knots to progress to from those listed here would be a sheepshank, knots used for fishing tackle, a can sling, etc.

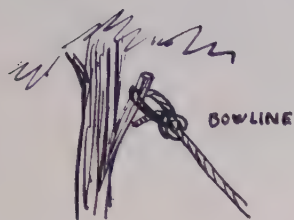
A fine progressive step in rope work would be to try your hand at splicing a rope. There are a number of different types of splicing, and they are just as useful in campcrafting as in nautical activities.

The netting knot is a fine advanced step; learn it to make a tennis net, a fishing net, or a hammock.

There are many crafts based on knot tying - lanyards and belts are good projects.



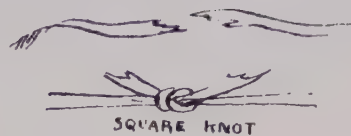
## Some Ways to Use Knots Around Camp



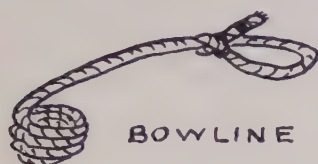
A permanent loop for a hook



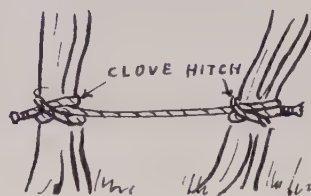
To tie a bandage



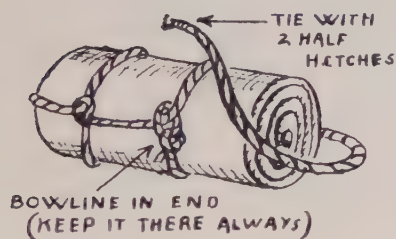
To mend a shoe lace



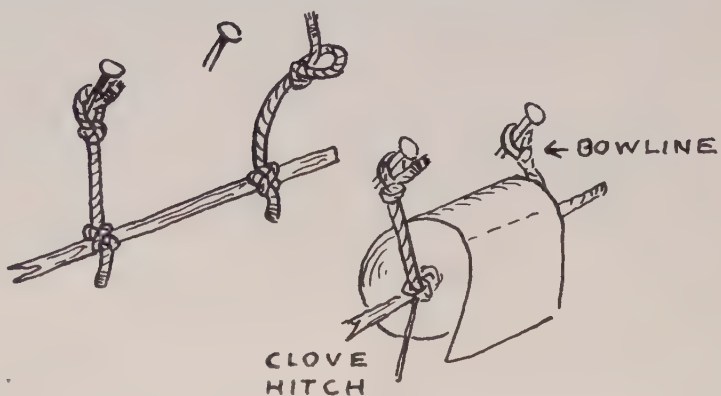
A loop for the end of a life line



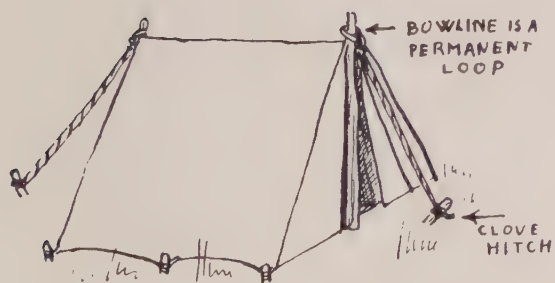
A temporary clothes line



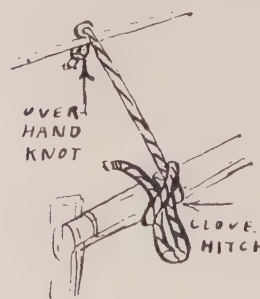
To tie a blanket roll



A holder for paper



Putting up a pup tent



For a tent guy rope on siderail

Here Is Space to Sketch Other Ways to Use Knots

---

List Here Uses Discovered for Knots?

Square Knot    Sheet Bend    Clove Hitch    Bowline    \_\_\_\_\_

-----

BOOKS TO HELP WITH KNOTCRAFT

Useful Knots and How to Tie Them - pamphlet of Plymouth Cordage Co.,  
North Plymouth, Mass. (Free on request)

Fun with String - Joseph Leeming (Lippincott, \$2.25)

Sailors' Knots - Cyrus Laurence Day (Dodd, Mead, \$3.50)

Knots and How to Tie Them (Boy Scouts of America, \$.10)



## L A S H I N G

Lashing is a method of fastening sticks together by binding with cord. This method avoids the use of nails, and is used where a temporary fastening is desired, where it is desirable to spare a living tree, or when it is desirable to dismantle the object easily, as at the end of a stay in camp, or for transporting to another site.

A good lashing is a neat, attractive piece of work that holds securely. Lashing is generally preferred to nailing by campcrafters because of its rustic appearance, the ease with which it can be assembled or taken down, and because the making of it requires few tools.

There are several types of lashings:



A SQUARE lashing joins two sticks together at right angles.



A DIAGONAL lashing joins two sticks in the form of an X, or on the diagonal, preventing a scissor-like action.



A SHEER or ROUND lashing joins two sticks along the length of one, rather than at an angle.



A CONTINUOUS lashing holds several small sticks at right angles to a long stick.



Materials used in lashing depend upon the size of the article to be made, and to the use to which it will be put, as well as to some extent on what is handy. String and twigs will be used in making small craft articles, while heavy cord and strong saplings or trees will be used in making heavy articles, like furniture. Binder's twine, a shaggy kind of cord, is often



used because it is cheap, very tough, and easily obtained at any hardware store. A finer cord or string may be used to get a more finished effect.

---

Knot tying is an essential in good lashing, and the learning of knots should precede the beginning of lashing. The clove hitch, the half hitch and the square knot are most generally used. (See page 17.)

---

#### GETTING AN INTEREST

The desire or need for learning about lashings may come because a leader has suggested a way out of a dilemma on "furnishings" for the unit, because some one has seen an article somewhere else that is made of lashings, or because preliminaries for a trip have disclosed the need of a quickly made article.

A tour of the camp, in the getting-acquainted stage, may point out lashings that have been made in other sections of the camp, or there may be a lashing or two left from the last group, such as a dishwashing table, or a peg left on a tent pole; these may need strengthening, or may suggest further developments. If there are no such examples, it would be worthwhile for the staff to "plant" a few before the campers arrive. The staff might well make its own home more comfortable with a few lashed refinements, or

a staff member might lash a stick to a tree for a towel rack, in plain sight of the campers, with the hope that some one will show an interest in what is going on!

### LEARNING HOW

Having caught the interest, felt the need, either as individuals or as a group, it is time to sit down to a "larning!" It will help to have well-made samples of each kind of lashing, made of sticks about the size of the thumb, and smooth cord, so that each member of the group can handle them and get a good mental picture of finished lashings, top and bottom, and all around.

Ask each person in the group to pick up three sticks about a foot long, and as thick as the thumb, the straighter and smoother the better. Have a piece of small cord or twine about two feet long for each person.

Some one should demonstrate slowly how to make a square lashing. The demonstrator should hold the work so that the group sees the front, and not the back.

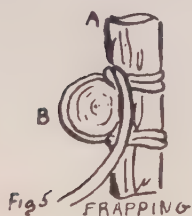
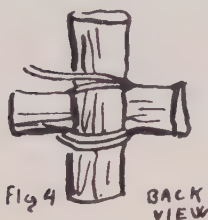
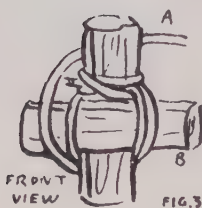
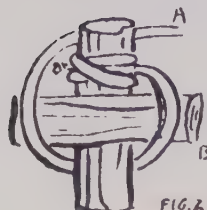
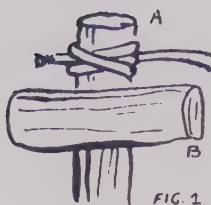
Repeat, letting each person follow the steps with his own sticks and twine, and being sure that each gets the over and under winding. (It will probably be necessary to review or teach the clove hitch first.) It helps if there are several people who already know how to lash, who can guide the first windings!

Do not finish off, but let each person unwind his lashing, and try again, unassisted. Give time for each one to get the hang of it, and then urge him to use the lashing on some article, showing how to finish off.

Having mastered the square lashing, the others are easily learned from demonstrations or from pictures.

## HOW TO LASH

### SQUARE LASHING



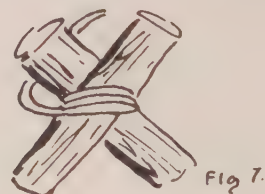
Place sticks in desired position. (Fig. 1)

Tie the clove hitch to vertical stick (A) at one end of cord, slipping knot around so that the long length of the cord pulls directly out from the knot. Be sure you do not pull back against the knot, but pull so that you tighten the knot. (Fig. 1)

Bind sticks together, by passing the cord down in front of horizontal stick (B), under A, up and over B on the other side, and under A, coming out at the place where you ended the clove hitch. (Fig. 2) Repeat this winding several times, following the first turns, and pulling tightly, as you make the cord lie neatly beside previous turns. Be sure to follow the "square" you have made, and do not cross the cord over the center of the sticks, either on the top or underneath. (Fig. 3 and 4)

When the sticks are firmly bound, tighten the binding with a frapping. This is done by winding the cord between the two sticks, so the first binding is pulled tighter together. (Fig. 5)

End by making two half hitches around one stick, or by joining the end of binding cord to the starting end by a square knot. Clip off, and tuck the ends underneath the lashing.



### DIAGONAL LASHING

Place sticks in position, forming an X, and hold them in this position continually. (Fig. 6)

Make a clove hitch around the two sticks, as shown. (Fig. 6). Make three or four turns around one fork (Fig. 7), then three or four turns around the other fork, pulling tightly. (Fig. 8)

Frap and end as in a square lashing.



## SHEER OR ROUND LASHING

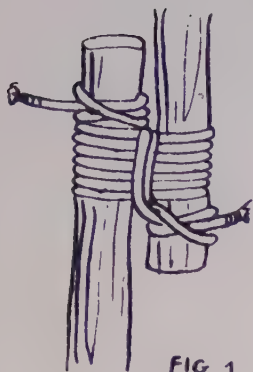


FIG. 1

Place sticks in desired position.

Start with a clove hitch around one stick. Take several turns around both sticks, making sure the turns lie tightly and neatly beside each other.

Frap, and end with two half hitches, tucking both ends under the lashing. (Fig. 1)

## CONTINUOUS LASHING

Have sticks cut and ready, long ones the desired length, short ones the size desired for the width of the finished article, and approximately all the same diameter. Mark or notch the long stick at even intervals where the small sticks will be lashed, to make the small sticks fit into place. (Fig. 2)

Take a cord approximately four times longer than the long stick. (This will vary with the size of the sticks and the cord.)

Start with a clove hitch at one end of the long stick at the middle of the cord, so there are equal lengths on either side of the long stick. Place this hitch so that the ends of the cord pull the knot tight, as they come up from the under side of the long stick. (Fig. 3)

Bringing the cords around from this knot, pull them over the first small stick, following the lines of the long stick. (Fig. 4); pull down and under, crossing the cord on the under side of the long stick (Fig. 5), and coming up again, ready to bind the second small stick. Pull cords over the second small stick in the same manner, following the lines of the long stick, going under, crossing underneath the long stick, and coming up ready for the third stick. Continue this to the end of the small sticks so that the cord always runs parallel to the long stick on the top and crosses on the under side. Pull tightly at each small stick.

End by two half hitches, and tuck ends of cord under last small stick.



FIG. 2

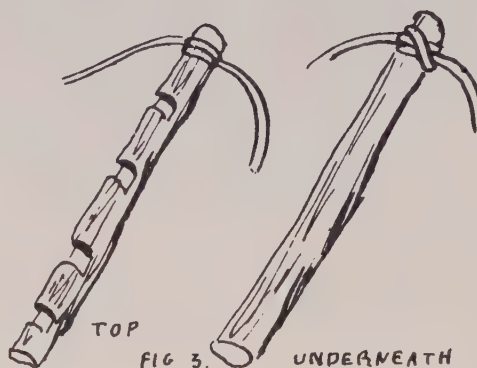


FIG. 3.

UNDERNEATH

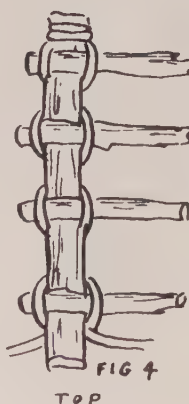


FIG. 4

TOP

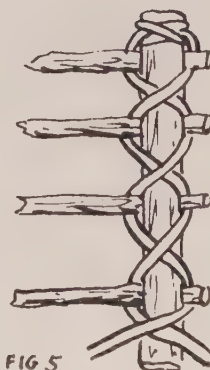


FIG. 5

UNDERNEATH

### FIRST STEPS IN TRYING OUT LASHINGS

Urge beginners to start with something simple enough to bring real satisfaction as they use the lashings.

Good articles to suggest for first lashings -

- a stick lashed between two trees for a towel rack
- a forked stick lashed to a tent pole or tree for a clothes peg.
- a coat hanger, shoe rack or large picture frame  
(small frames are fussy!)

### PROGRESSION IN LASHING

When the principles of lashing have been mastered, urge the campers to add finishing touches of well-trimmed ends, carved initials or designs.

Bring in a nature touch, such as knowing the kinds of woods that are plentiful, knowing what kinds are straightest, strongest, smoothest, least knotty, etc.; discovering where such wood grows around the camp; finding out whether some woods have better forks than others.

From individual pieces like coat hangers, progress to things a group may work on, like a table for the forest kitchen, a washstand for the tent, and the like.

As you progress, bring in tool craft, appreciation of the beauty of woods, conservation, and the need for a discriminating and observing eye.

---

### TO HELP WITH LASHING

Camping and Woodcraft - Horace Kephart (Macmillan; order from Girl Scouts, Catalog No. 23-302, \$2.50)

Girl Scout Handbook (Girl Scouts of the U.S.A., Catalog No. 20-101, \$1.00)

## A Few Suggestions of Things to Lash

### Coat hanger

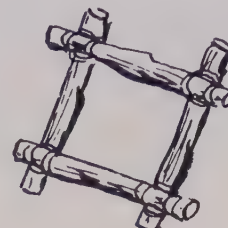


Select two sticks, as illustrated, one with a natural fork, and the other very smooth and slightly curved. Trim ends smoothly. For best results, notch at joining point. Use square lashing.

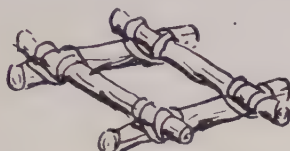
### Picture or mirror frame

Select four smooth twigs or branches. Trim neatly, making them the desired size. Watch at joining points.

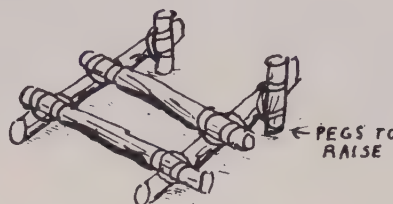
Use square lashings, binding with string or fine cord for small frames.



Use same principle for shoe rack or suitcase rack.



Suitcase rack, to raise suitcase off damp ground, or to prevent scraping on floor.



Shoe rack, to facilitate sweeping floor, keep tent tidy, etc. Raise in back by small pegs.



### Peg for pole, or tree

Select forked stick, trim neatly with axe or knife, and flatten on back, as needed, to fit closely to pole or tree.

Use sheer lashing. (You may not need to frap this)

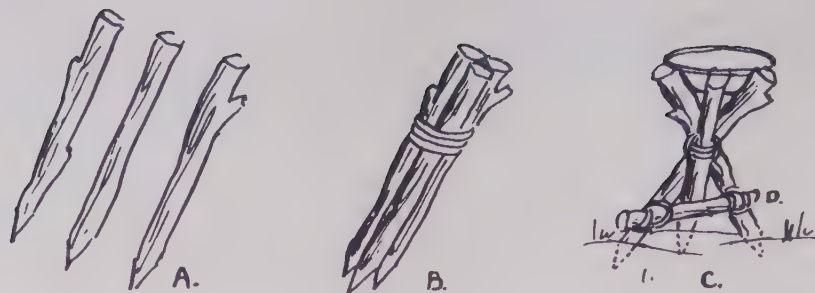


Rack for towels, swim suits, etc. or for keeping lunches, sweaters, etc. off ground on day hikes.



Use square lashings. Look for two convenient trees, or make a set of tripods with diagonal lashings.





### A tripod basin rack

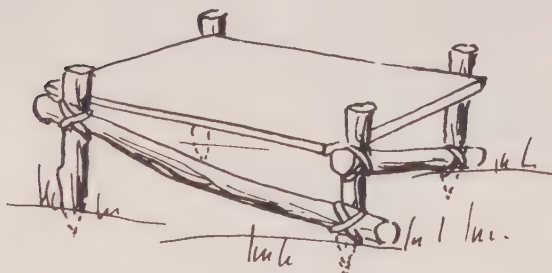
Select three sturdy sticks, about same thickness. Trim to same length, and smooth off rough spots. Leave forks that may be utilized for hanging wash cloths, etc. on. Point at ends, if the rack is to be used outdoors. (A)

Hold with hand, and spread apart to judge height wanted. Try a basin on the top, and mark place for lashing which will bring basin to right height.

Lash all three sticks together in a sheer type lashing. Then spread sticks apart evenly in a tripod, and bind as in a diagonal lashing two ways, to hold in place.

Drive points in ground, or strengthen if necessary by braces at the sides (square or diagonal lashing).

Another way to make a tripod is to bind all three sticks together and then twist the middle pole until the lashing is tight. Spread as above. One twist will probably do it. (E)

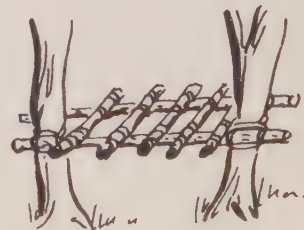


### Braces for tables, woodpiles, etc.

Use diagonal lashings

### A table top for the kitchen or a seat

Cut and trim all pieces as needed. Two convenient trees are a big help, or you will need four sturdy posts, and possibly braces on side. The two side sticks must be strong, and as straight as possible. Notch the places for the smaller cross sticks for better results. Lash these in place with square lashing first.



Use continuous lashing for top.

Sketch pictures or paste photographs of lashings you have seen,  
or would like to make, here.



## TOOLCRAFT

There is no doubt of the answer a campcrafter would give if asked what his favorite or most useful bit of equipment might be - his jackknife! It might well be termed "the campcrafter's companion," for it goes everywhere with him, is ready for any need, is easily carried, and is generally the first bit of equipment that a campcrafter owns. Running the knife a close second in usefulness and handiness will be the hand axe. There will be many tools a campcrafter may use as he progresses in being a camper, but these two will be the ones discussed here.

There is a responsibility in owning and using any sharp-edged instrument - responsibility to oneself and to others, to know how to put it in efficient condition, and how to keep it there, as well as how to use it safely. Ability to use tools will open new avenues of activities to campcrafters; almost all campcrafting depends upon toolcraft, and many outdoor hobbies grow from knowledge of the use of tools. The counselor's job will be to help the camper to see the need for practicing responsibility in the use of tools, as well as to help him acquire skill.

### GETTING AN INTEREST

Probably no conscious effort will need to be made in getting an interest in using a knife or hand axe. Many of the campers will own knives, and all will be wanting to use them. The counselor will need to inject the safety idea in use and the care of tools. Here again will be that standard of what a "good campcrafter does;" no campcrafter should have to apologize for the



condition of his equipment - though he may be reluctant to let you borrow it! No campcrafter knowingly endangers some one else while he is whittling or chopping, nor does he just "fool around" with an edged tool.

Chances for helping campers make good use of knives or axes, or for putting over the need of reconditioning them, may come with the call for green sticks for cooking, with the decision of the tent group to make a towel rack, with the necessity for the wood gatherers to get some fuel that will make coals. When a jackknife will not "cut butter," when the unit axe refuses to split kindling easily, when some one wants to carve an initialed pin and has a hard job getting started - then may come the best time for bringing out the sharpeners or the oil stones.

Many a counselor has started to whittle on a pin or paper knife just to show what can be done. In one camp there is a "Whittlers' Guild" that meets every night after supper; to join this illustrious body one must present one article he has whittled, be it ever so simple. In the company of others who like to whittle, great things are started, to be worked on thru the day. About every two weeks the Guild has an exhibit, mainly for its own enjoyment, but also with the hope of interesting other campers. It is an informal group - no awards, no insignia, but the reward is in the fun of creating, of seeing what one can do.

Toolcraft is stimulated when tools are handy in a tool chest, when there are sharpeners at hand, and when the counselors use knives or axes that are in good condition, and use them safely and well at all times!

### LEARNING HOW

If a counselor is aware of the best ways of handling a knife or an axe, individual attention and help can be given to campers at any moment. With a group of young or inexperienced campers, one of those "larnin" periods may be

a good start-off, to point out general practices, and to give campers a few general points on which to start.

Ask every one who owns a knife to bring it to a meeting, and then talk about the different kinds, what the various blades may be used for, what various types are best for, and so forth. In this discussion there will surely be some one who has difficulty in opening his knife, or who immediately says - "It isn't much good; I can't do anything with it." Without much delay this will lead to a lesson in how to oil, clean and sharpen knives.

When the group is acquainted with the various types represented, let some one give a demonstration of how to hold a knife, how to use it while standing or sitting, how to open and close it. Get the group to figure out good practices, and the reasons for them.

Have several sharpeners and a can of oil available, and get some campers started on getting their knives in better condition. Many camps carry small pocket stones in the camp shop, and urge campers to own their own, having them ready for instant use.

The same procedure can be followed for a HAND AXE, though there will not generally be enough for each camper to have one for practice. Give each camper a turn, sometime; if there is a wood-gathering job that rotates in the group, use the "kaper" time for practical instruction. At the woodpile demonstrate how to use an axe at the chopping block; then move the group into a place where a sapling or branch may be cut, to show the way to use an axe there.

The group will progress to using a large axe as the experience and the age of the group warrant. The same procedure will help.

Instruction in the use of other tools such as hammers and saws will probably come as the need for them arises, or might well be a part of the general settling-in process, with individual practice coming later.

## USING A JACKKNIFE

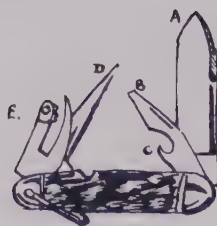
### Some types of knives



Two-bladed  
knife



Small-bladed  
knife for  
whittling



Four-bladed knife, with  
(a) blade, (b) screwdriver,  
(c) bottle opener, (d) awl,  
(e) can opener, (f) ring  
for belt

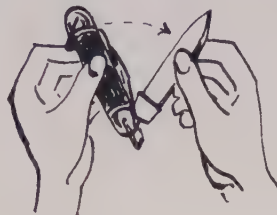


Sheath knife  
(not a jackknife,  
blade does not  
fold into handle)

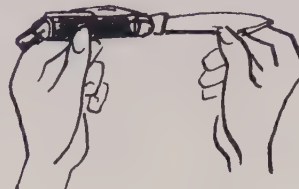
### To open a jackknife:



Hold knife in both hands,  
right thumbnail in slot.



Pull blade out.



Keep hold with both  
hands until open.

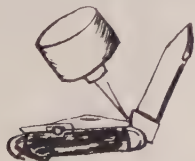
To close: Reverse above, holding blade until it is nearly closed, then letting it snap shut. Avoid closing with one hand.

### To pass an open knife:

The person handing should hold knife by the blade, passing the handle to the other person. In this way the hander has control of the edge of the knife.



### To clean and oil a knife:



Put a drop of machine oil on the hinge, and work blade a few times. Knife should open easily.



Clean blade with drop of oil and piece of paper, cloth or steel wool.



DON'T stick in dirt or sand; may chip blade.

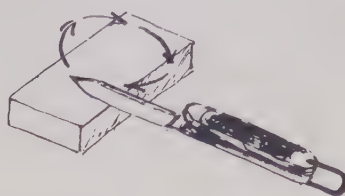


### To sharpen a knife:

Sharpening stones are known as oil stones, hones, whetstones or carborundums. They are made of abrasives that provide a grinding surface; they may be of varying degrees of coarseness; a fine stone is used for knives, a coarser one for axes. Some stones come in two degrees of coarseness - one for taking out nicks, and the other for putting on a fine edge. They may be round, oblong or square. Machine oil is used on oil stones; water reduces friction on coarse stones.



Hold stone with thumb and forefinger below the top edge.



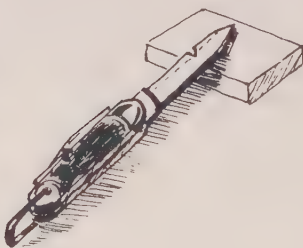
Hold knife blade flat on stone. Move with circular motion, with pressure away from the knife edge.



Turn blade and repeat circular motion on other side.

Keep this up at least three times longer than you think is necessary! To test the edge, try on a piece of wood, not your finger. Try to get a long thin edge that spreads evenly back to the thick part of blade; the marks of the stone should show all across the blade.

(NOTE: There are many theories as to the best way to sharpen a knife! Your handyman will probably have another theory. Figure out what you feel is best!



If there is a nick in the blade, use a coarse stone, and tip the blade at an angle; wear away enough of the edge of blade along its length to make an even edge.

Finish off with a fine stone.

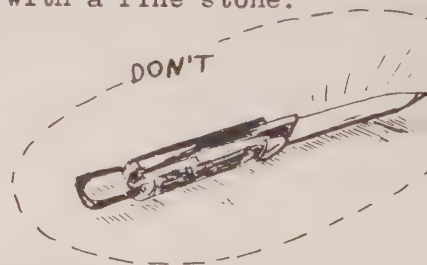
### When knife is not in use:



Usually it is best to close it before laying down.



When you put it aside for a minute, be sure to place on its side, NOT on its back with the blade up (think what might happen!) and NOT stuck in the dirt or sand.



## To use a knife:



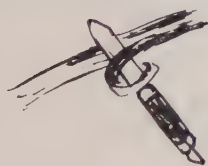
Take a firm grasp on the handle.

Push with your whole hand .....NOT with your thumb!

Whittle away from you (until you are an expert!) Be sure that nothing (your leg, another camper, branches) is in the way of the sweep your knife will take if it slips. Move your hand over the arc the knife might cover, just to be sure.



To make a point, whittle away from you, digging the blade in as you go down the stick, and turning stick as you cut, to make an even point.



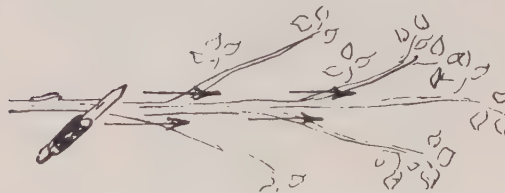
To make shavings, try to get long, thin pieces, not little scrubby bits. Dig the blade into the wood a bit, and start on a piece of wood without many knots.



To cut across a stick, cut on the diagonal. For a large stick, or to make a notch ----



cut diagonally on one side, then on opposite side to make a V. Slant cut; don't try to cut straight across.



To trim a branch, cut away from the thick end, toward the top of branch. Start at bottom, and trim down the branch.



To cut a green stick, choose a stick in a thicket where it will not be missed. Look for one with the kind of fork you will need. Avoid cutting on the edge of a path or a road.



Cut close to the ground, leaving a smooth cut, not a jagged edge.

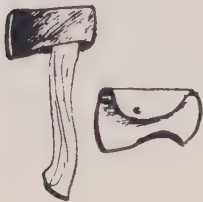
You may need to make diagonal cuts, in a V, if stick is thick.

---

Progress to carving pins, paper knives, or balls in boxes

---

### USING A HAND AXE



A HAND AXE is a small axe, usually used in one hand. It has a flat head to use as a hammer. It is a handy tool for general use; while it cannot do heavy work, it is a good tool for beginners to use in getting acquainted with handling an axe. For really heavy chopping, a two-handed axe will be necessary. A hand axe presents most of the problems of the two-handed axe, and is a good way to start axemanship.

When not in use: DON'T leave it in a tree  
DON'T leave it on or in the ground



Hang on  
two nails

or



Leave in a  
chopping block

or



Keep  
sheathed

or



Wear on  
belt



Carry with  
blade down

### To sharpen a hand axe:

Hold axe in left hand, by the head; hold sharpening stone in right. Use a rather coarse stone. Work stone on the axe blade. Finish with fine stone. Use a little water on stone to reduce friction.



Hold axe by head.



Move stone in circular motion, against the edge, keeping it flat on blade.



Turn axe, and repeat.



# To use a hand axe:



DON'T grasp  
near head  
of axe!

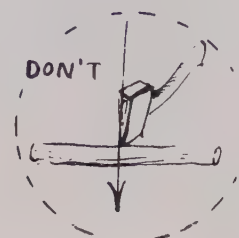
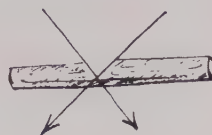
Grasp end of handle firmly, thumb around fingers. Raise by arm and wrist motion, letting weight of head of axe help to bring it down in place. Sharp, firm blows make for better progress than pecking, ineffectual quick blows. Take plenty of time.



To cut across a stick,  
strike on edge of block;  
hold at least two feet  
away from the point you  
will strike.



Make diagonal cuts



Don't try to cut  
square across  
a stick.



To cut a sapling,  
clear away brush  
around it.



Make a sharp, diagonal  
cut down the trunk.



Make a second cut  
up the trunk.

Repeat, making  
cuts larger

To point  
a stick



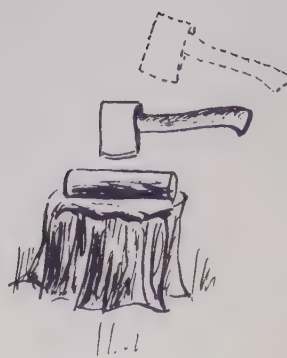
Hold on angle on  
chopping block



Strike on angle, turning  
to make a point



To split a log, place axe on stick, raise both together, bring down, striking on edge of block. Repeat if necessary.

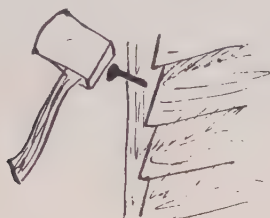


Lay stick flat on block. Do not hold. Raise axe, and bring down sharply in center of stick.



Or lean stick against a log, strike in center of stick where it touches log.

You may see experts holding a small piece of wood on end to split it; Wait until you are an expert to try it - it pays to be safe!



The flat part of an axe is a good hammer



When passing an axe to some one else, hand head first, so the receiver controls heaviest part.

A good test of axemanship is to be able to split a five-inch log into small kindling.

Progress to using a two-handed axe. (Good directions for this may be found in "Woodcraft" by Bernard Mason, and in the Boy Scout and Girl Scout Handbooks.)

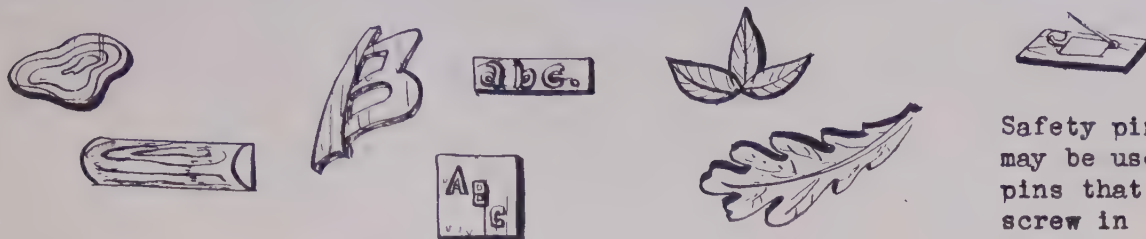
#### BOOKS TO HELP WITH TOOLCRAFT

Woodcraft - Bernard Mason (Barnes, \$3.50; order from Girl Scouts, Catalog No. 23-307)

Jack-Knife Cookery - James A. Wilder (Dutton, \$2; order from Girl Scouts, Catalog No. 23-311)

## Things to Make With Knife or Axe

Use natural woods for pins, buckles, buttons, letter openers. Carve with knife, finish with fine sandpaper and polishing wax, to bring out the grain of the wood.



Safety pins  
may be used;  
pins that  
screw in  
place are  
better

Pins of plain polished wood, carved initial, favorite leaves



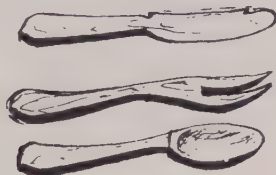
Belt buckles

Napkin ring

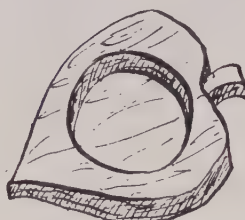
Buttons of wood or nuts



Letter opener



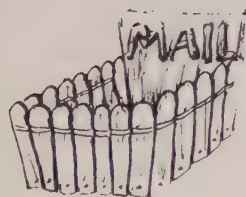
Spoons, forks



Hike plate



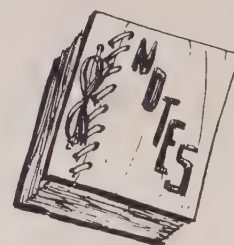
Clothespin



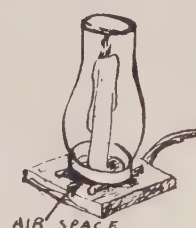
Mail basket



Belt



Notebook covers



Candlesticks



Put sketches of snapshots of articles made with knife or axe



## FIRE BUILDING AND FIREPLACES

There is nothing that is more utilitarian or more aesthetically beautiful than a fire. Fire is one of the campcrafter's best friends. It serves its master in many directions, and, kept in control, it is a good servant, but becomes a genie let out of the bottle when the master does not keep control of the situation. So it is very important that campcrafters learn more than just how to light a fire; they must consider where to build, how to take care of, how to control, and how to put out a fire, and something of what should be done in case of a fire. Fire building and fire prevention must be partners in a campcrafter's mind.

Fires have many uses; they may cook food, heat water, destroy rubbish, or serve to warm and cheer the camper. A good campcrafter learns to build a foundation fire, and then builds that into the kind of fire that will serve his purpose best. Just as in knot tying it is important to learn what certain knots do, it is important in fire building to know why certain types of fires are better for certain purposes, and to know how to produce the particular type needed at the moment.

A good fire is built in a safe place, which will help control it, is just large enough to serve the need for which it is built, is kept under control at all times, and is completely extinguished when no longer needed.

Toolcraft, the use of knife and axe, is closely linked with fire building, and fire building is closely linked with almost every other part of campcrafting, from cooking to campfires, so this skill is important in connection with other parts of this book.

### GETTING AN INTEREST

There is generally such an apparent need for a fire, and such a desire on the part of a group to use a fire, that there is little difficulty in getting an interest. The counselor's job will probably be more difficult when he tries to include fire prevention and care of fire, for youth is impatient to "get going" without considering the consequences. Here again is that need for learning what "good campers" do, and for knowing the "rules of the game."

Fire building, like most parts of campcrafting, calls for much practice, and counselors will need to be sure that all campers in a group have opportunities to build and light fires, and that the most skillful do not always have the chances. It takes time for a beginner to struggle through all the steps himself, before he has caught the skill.

Cook-outs and campfires and "camp-keeping" will present opportunities for fire building. Small groups using several fireplaces for cooking not only will make the cooking simpler, but also will give more campers the opportunity to practice building fires.

### LEARNING HOW

Like everything else, each camper will need to go at his own pace, and practice until he is proficient. With an inexperienced group, a demonstration by an experienced camper or a counselor will serve as a start-off. If the group is large, find an open place of dirt, rock or sand where several fires may be built at a time, and let each camper, or a pair of campers, build a small fire, having first gathered the right kind of fuel. If the group is small, it is better to learn to build the fires in the



regular fireplaces, as start-offs for cook-outs or campfires. Remember to plan to spend plenty of time, for it is a slow process at first! Try always to use the fires, even practice fires, for something; if the group is experimenting with several sets of fires, let each camper toast a piece of bread or a marshmallow before putting out his fire. If the demonstration has been clear, the campers can experiment on their own. Of course you can fix that tinder up with a flick of the wrist, but will that teach the youngster what is the matter, and what will correct it? It will be hard to keep your hands off, but it will be worth it!

It will probably be necessary to teach young campers how to light a match, holding it so that the flame ignites the wood of the match, how to shield it from the wind, and how to insert the lighted match into the fire.

## BUILDING FIRES

### WHERE TO BUILD

- On sand, rocks or dirt. (NEVER at the base of a tree, or near enough for heat to kill the roots.) Ground should be cleared of leaves, grass, sticks, etc. down to solid dirt, for five or more feet around the spot, unless a stone fireplace is used. This is especially important in the woods. Clear away leaf mold, etc. to prevent fire from smoldering underground.
- In a fireplace, temporary or permanent. Temporary fireplaces are made of ditches or holes dug in dirt, green logs, rocks, bricks, clay or tin cans.
- With the wind at your back, as you face the fire. This will make a draft that blows through the fire when it is lighted.

## WHAT TO USE

There are three types of material used in fires: Tinder, kindling, and fuel.

TINDER: That material which catches fire from a match.

Should be in pieces not any thicker through than a match, but longer.

Shavings or fuzz sticks, fine twigs (especially from evergreen trees), bundles of tops of bushes or weeds, pieces of fat pine, thin pieces of bark, etc. make good tinder. (Paper, of course, but campcrafters scorn it except in great emergencies.) Beware of light material like grass or leaves; these flare up quickly, but have little real substance and burn out too quickly to catch on anything heavier.



TWIGS



BARK

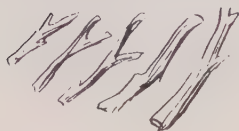


FUZZ STICK



SHAVINGS

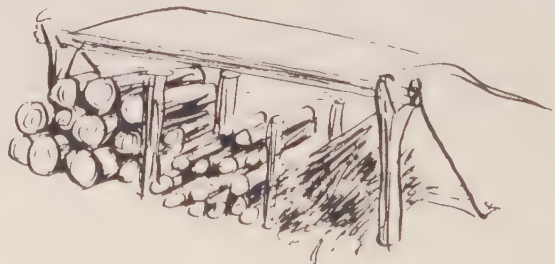
KINDLING: Good dry sticks and twigs graduated in size from pieces just bigger than tinder, up to pieces as thick as a thumb, and from six to twelve inches long. Larger pieces may be split for kindling.



FUEL: The real fire material. Good firm pieces of wood, graduated in size from pieces just bigger than kindling up to good-sized logs, depending on use. Charcoal is often used as a fuel, too.



A good woodpile is a convenience, as well as a safety device. Stack wood so that tinder, kindling and fuel are in separate piles for convenience. Place woodpile near fireplace for convenience, but far enough away so campers do not have to walk in it to get around the fire, and far enough away on the side away from the wind so sparks cannot possibly fly into it.



## WHAT KIND OF WOOD TO USE

It is not always possible to choose a certain kind of wood to use, even though you know it is good, for it may not be found on your campsite, and you will need to use what is handy. It is better to teach young camp-crafters to be discriminating about woods found in abundance than to be too technical about the name of the wood. That is a step in progression for experts!

Wood for kindling should snap when broken. In general, dead branches from lower limbs of trees make the best kindling. They are apt to be drier than sticks found on the ground.

Sticks that bend without snapping are probably green; hard to burn, except on a hot fire.

Wood that crumbles is rotten. It will smolder, smoke and give little heat. (It is often the easiest to find; demonstrate what happens so campers will be convinced that it is not good.)

Split wood burns very well.

In wet weather try to find dead branches still on trees; they will be dry sooner after the rain stops because air circulates all around them. Sticks on damp ground will be wet on under side. Split sticks when wet; the inside will be drier.

SOFT WOOD is produced by trees that grow quickly - pines, spruces, cedars, gray birch, aspen, etc. This wood is good for starting fires, or for quick hot fires. It burns up quickly and needs constant refueling; it does not leave good coals.

HARD WOOD is produced by trees that grow slowly - oaks, hickories, yellow birch, maples, ash, mesquite, eucalyptus, etc. Hard wood is compact and firm, and feels heavy in the hand as compared with a piece of soft wood of the same size. This kind of wood burns slowly, and yields coals that will last. It needs a good hot fire to get started, and then burns well for a long time.

---

Take a trip to your camp woodpile, and look over the woods there. Try picking out pieces of hard and soft wood by the "heft" and the bark. Can you tell which pieces will be easy to split into kindling? Which will be good to use in fireplaces on cold days? Which will make good coals?

---

Make a list of types of wood found on your campsite:

Soft Woods

Hard Woods



## HOW TO BUILD A FOUNDATION FIRE

1. Have fireplace ready before you begin.

2. Have ready, at hand:

- a big handful of tinder
- a double handful of kindling
- what fuel you will need, unless there are woodgatherers working with you so you will not have to leave the fire after it is lighted.



FIG. 1



FIG. 2

3. Kneel with wind at your back; take two small sticks of kindling and place to form an angle in fireplace, as shown in Fig. 1; or place one stick obliquely in ground to use as a prop for tinder.

4. Pile a good bit of tinder in the angle of the sticks, lightly, so there is air, but compactly enough so each piece rests against other pieces. Leave a tunnel at bottom in which to insert match. (Fig. 2)

REMEMBER: Fire needs air.

Flame burns upward.

Only material in the path of flame will ignite.



FIG. 3

5. Strike match, tipping down, so flame catches on wood. (Cup in hands, if necessary.) When well lighted, stick flame in air space, putting flame under the center of the pile of tinder. If match goes out, use it as extra tinder. Blow gently at base of fire if necessary.



FIG. 4

6. As flame catches, and begins to spread, add bits of tinder, placing gently over flame until there is a brisk fire. (Fig. 4)

7. Then begin to add pieces of kindling, one by one, placing lightly where the flame is best, starting with small pieces, and gradually adding bigger pieces, forming a tepee shape. Do not make any sudden changes in size of wood used; add pieces that are just a bit larger than those already burning, until you are using thumb-sized sticks. (Fig. 5)

REMEMBER: Build gradually.

Keep fire compact, each piece of wood touching other pieces for most of its length.



FIG. 5

8. When fire is going well, begin to add fuel in graduated sizes, building into the kind of a fire you will need. (See next page)

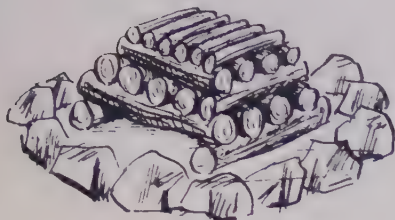
## COOKING FIRES



### Tepee or Wigwam Fire

A quick, hot fire for boiling, etc. Concentrates heat at a small point at top.

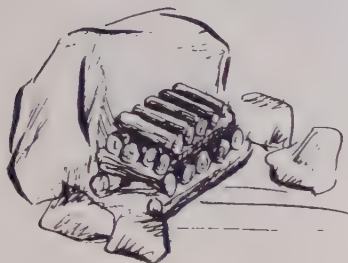
Start with a foundation fire. Continue building with fuel, in tepee formation, as shown, keeping tall, not widespread.



### Crisscross Fire

A solid fire that will burn to coals, or produce a long-burning fire.

Start with foundation fire. Add fuel, as shown, to make a crisscross of sticks. Put thick sticks at bottom.

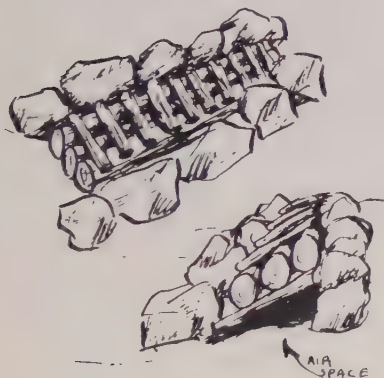


### Reflector Fire

To provide high and steady heat for baking, planking, etc.

Start with a foundation fire, and build it into a high crisscross fire built against a rock or reflector of logs. Let burn to good coals.

For quick browning, build a fire high against reflector.



### Trench Fire

To provide long, narrow fire for trench type fireplace.

Start with one or more foundation fires, and when going well, knock flat, instead of building into tepee. Make a long, narrow crisscross type, with long sticks the length of firebox, and small sticks cross-wise, to provide air.

If fire seems to burn poorly, be sure you have plenty of air going in at front. Raise sticks by a cross stick, if needed, in front.



### Tin Can Fire

A small steady fire in a tin can.

Start with a small fire of tinder. Have a supply of sticks no bigger than thumb (for a #10 stove). Keep fire small, and feed steadily with small twigs. Needs plenty of air; keep extra tinder handy for bolstering up!

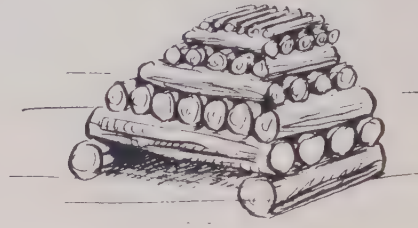
Move can in place when fire is going. Tin can cookery needs two persons - one to cook, the other to feed fire.

## CAMPFIRES

Campfires are generally laid before using, so the foundation fire must be sureproof, and the other structure in place before lighting. The trick is to be sure there is plenty of tinder and small kindling, and a place to insert the first light. In ceremonials, it is better to use extra tinder than to have the fire lighting keep every one in a frenzy of anxiety!



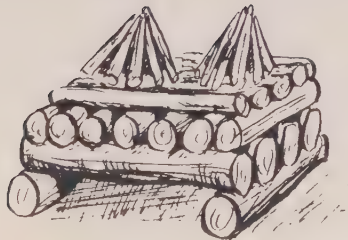
Tepee type



Crisscross type

### Altar type fire

This is a special fire for ceremonials. Looks well in a fireplace, and is thrilling to watch burn. Goes against the old theory that fire burns up, but works if there is plenty of light stuff to ignite lower layers.

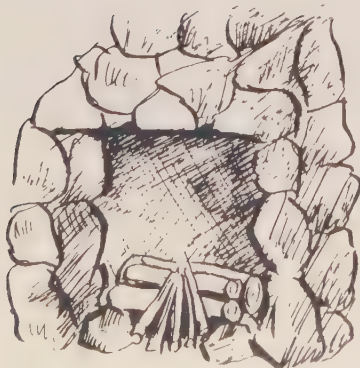


Make a long criss cross type fire. On the top build one or two tepee fires, with leaders running down through the inside of the criss crosses. Use plenty of tinder and small stuff, to make the rest catch.

Light the tepees, and fire will spread out and down until all is burning.

This type of fire should not need refueling thru an evening.

### Indoor fireplace fire



This may be a modification of either a tepee or a criss cross fire, generally built against a large back log.

Be sure there is enough small stuff and graduated sizes of wood to ignite the big logs. Once the fire is burning well, you can add logs. Keep the ashes in the bottom of fireplace; they conserve heat and help fill in air space.



## Hot Water Systems



A large tin can



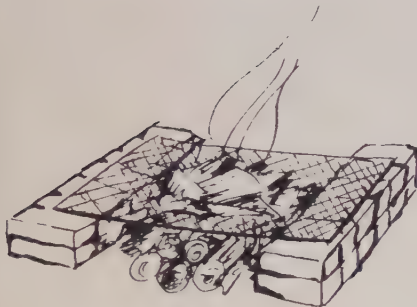
An old gasoline tank. Add the spigot. Leave vent in top.

## Garbage Disposal



Build a good, freely burning criss cross fire, and pile garbage lightly on top. Drain as much as possible beforehand, and add bit by bit, not all at once. When fuel is limited, dry garbage in sun before burning.

It takes a GOOD FIRE to burn garbage which is generally very moist, and needs heat to dry out. Provide plenty of air, too.



For a permanent garbage burning place, use a screening raised on stones or brick. Gives the fire room to burn without being smothered.

When burning papers, bundle into hard balls to prevent them from blowing away when lighted. Tear paper boxes into small pieces, and add gradually to fire.

---

## FIRE PREVENTION

1. Use fireplaces to enclose fires.
2. Clear ground around fireplace, so wind cannot blow a spark into leaves, grass, etc.
3. Dig a trench in ground, if there are no stones to enclose fire; pile dirt on sides. Replace sod when through with fire.
4. Build small fires.
5. Break matches in two before throwing away.
6. Have some means of fighting fire near at hand; these may be pails of water, piles of dirt, brooms, rakes, shovel, etc.

7. Talk over what to do in case of fire with group. The counselors should know what they would do if the grass caught fire, etc.
8. Never leave a burning fire unattended; in a wind keep a constant watch on it.
9. Be sure all fires are OUT before leaving. Let them die down as soon as you are through with them, and then rake all large logs to side, stir coals around, wet with water if possible, or cover with dirt, and stir again. Be sure there are no live coals or smoldering logs. A wind can whip them into life very quickly. If you can place your hand on the spot where the fire was, it is safe to leave.

#### IN CASE OF FIRE

You may take every precaution in building your fire, yet a spark may jump out into the leaves or grass and start a fire. You may come on a small fire just starting from some carelessly thrown match as you hike thru the woods. Do something about it before it gets too large! Here are some ways to take care of it:

Send some one to notify fire wardens by telephone, unless you are SURE you can handle it.

Keep cool, be deliberate, plan your attack with the group.

Use sand or dirt to smother flames, or use brooms, brush, burlap bags, or some other heavy material that can be soaked in water, to beat out the flames. If there are pails of water handy, make the water go farther by this method, rather than trying to sprinkle on the flames. Use shovels to dig dirt to smother fire, or to dig trench around it.

Work with the wind IN YOUR FACE, not at your back. Beat toward the wind; (beating with the wind at your back tends to help fan the flames, or causes sparks or flames to jump ahead into unburned area.)

Larger fires require fire fighters and tools. An experienced man should organize that crew. Let the fire warden take charge, and help as he directs.

(Note: State and Federal Conservation Departments have excellent books to help with this. Ask your state what help is obtainable.)

---

Progression in fire building will come in greater proficiency in building fires and in a wider use of fire. There is much material written to help with fire building. Link it with more advanced cooking, like clambakes, or barbecues. Provide a carry-over to using public parks, etc., by discussion of ways to make good use of public facilities, where to find out rules for use, etc. Fire by friction is a big step in progression.

Put Snapshots or Sketches of Fireplaces Here

Other Types of Fires

---

BOOKS TO HELP WITH FIRE BUILDING

Woodcraft - Bernard Mason (Barnes, \$3.50; order from Girl Scouts,  
Catalog No. 23-307)

When You Are in the Woods - New York State College of Forestry,  
Syracuse, N. Y. (Free on request)

Fires for Fun - Department of Conservation and Development, State  
of New Jersey, Trenton, N. J. (Free on request)





## O U T D O O R F O O D

WHAT - as well as WHEN you eat - will more than likely spell the degree of success of the beginning campcrafters' outings! More in the way of related projects may hinge on the choosing, preparing and serving of food than on anything else. The day will be saved or ruined by the lunch, the supper, or the snack on the trail or in the nearby forest kitchen, and the campcrafting skill of the camper will grow in the same degree as does his ability to produce well-cooked, exciting food over the glowing coals.

As in everything else, progression is important - progression not only in cooking, but also in firebuilding, for the two go hand in hand; the making of gadgets, and the handling of tools will also be closely related to the preparing of good campcrafting food.

Campcrafting food begins before one thinks of cooking at all; it will probably start with the first hike lunch that is tucked in a pocket, or packed in a shoebox! Here, my friend, is the place to begin with the campcrafting idea! It links up how much you take, and how you take it, with what you take. A large bulky lunch that is difficult to carry, and that cannot be consumed by the ordinary person, even with an outdoor appetite, is not a part of good campcrafting; but, enough to eat, and that the best tasting food you can get, carried so it is still appealing at the end of the trail - that is indeed campcrafting!

Here again, it will be necessary to find out the level of experience of the group, and to start from there; a group of youngsters new to camping and the out of doors should not be urged into making a bean hole meal the first thing, no matter how exciting it may seem to the leader, or to one member of the group who has been reading ahead in a book. A thrill may come from sandwiches toasted a golden brown, from cocoa made "just right," or from a marshmallow really cooked and not burnt to a cinder. What is important is to have whatever is done so successful, so perfect, that it indeed tastes like more, and so the campcrafters can hardly wait until the next time to try something else.

Progression is important, but once having tried a cooking joy, do not forget that repetition is also fun. Don't forget the taste of a well-done hamburger, just because you have progressed to kabobs! BUT - there's no campcrafting in never adventuring beyond the frankfurter stage!

#### GETTING AN INTEREST

Of all campcrafting, the little matter of food is probably the one where there is no need of working up enthusiasm! The interest is already there, and the job of the leaders is to see that the interest grows into many channels, and to grasp golden opportunities to introduce some other part of campcrafting such as firebuilding, or conservation of resources, or skill in using tools.

There may be difficulty in getting a group beyond the "but we like frankfurts" stage; go at it slowly, and gradually introduce things that are more exciting to cook than the lowly frankfurter. Start by helping the group to do a good job of cooking the frankfurters; they can be cooked with an artist's hand, browned and well-done, or - but every one has shuddered at the burnt-on-the-outside, raw-on-the-inside morsels that some campers "prefer." Offer many possibilities that may be taken, and let the group do the choosing.

It is easier to guide the choosing of the menu if the entire group plans to cook one thing; but you get better campcrafting results by having several things cooked. Try using basic ingredients in individual ways. If the counselors lead the way in trying new ideas, the campers will follow.

Having books with recipes may help to interest campers in doing new things. Counselors who experiment with ingredients are sure to lure campers into trying to make up new dishes. Sometimes it works to provide certain staple articles, and challenge experienced cooks to concoct a new dish.

Some groups enjoy making cook books, or recipe files that are kept in the camp, and serve to stimulate the trying of new dishes.

Having a good place to cook, such as the forest kitchens described on page 13, will do much toward stimulating cook-outs.

In some camps it is customary for the entire camp to cook out in small groups at specified times. Once or twice a week may be the limit for camps that are starting this, but some will do it much oftener. This plan should not mean that a group cannot choose to cook out at any time, but it does mean that since the whole camp is cooking out, the kitchen is freed for a particular meal. By guiding the menus, it may be a means of introducing new cooking ideas to the groups. It will probably be necessary to plan different menus for different age groups, according to their experience.

Some camps have found that the best stimulant to good cooking out is to have the staff members enjoy themselves at small cook-outs occasionally. A staff that chooses to cook kabobs on a day off will surely be leading campers that choose to cook out, too.





## FACILITATING COOKING OUT IN A CAMP

If the "management" hopes that outdoor food will have a large part in a campcrafting program, it will see that the way is smooth for groups to plan to cook out. Here are some ways it has been done:

- Being sure that the dietitian and the cooks understand before the camp begins that there will be many meals that will not be "regular." Being sure they agree to the plan.
- Being sure the dietitian has a plan for getting out supplies to groups, for helping the campers plan good menus, for helping counselors to know costs, supplies and the like. (This is assigned to one counselor in each small group in some camps.)
- Being sure there are counselors in each group who LIKE to cook out!
- Being sure there is equipment available for cooking out. (See page 14)
- Letting counselors know what they can have in the way of food, how they need to order for special treats, etc. Some camps have a list of those items that can be had at any time, of those that must be ordered ahead, and of those that are expensive and can be had only on special occasions. Staples of sugar, flour, salt, canned milk, syrup and the like are kept in the trail kitchen, and daily supplies are added as needed.

Here is such a list used by one camp:

### Always available

The ingredients of the next meal, to be used as the group likes.

Canned fish or meat, peas, corn, tomatoes, spaghetti, soup, fruit.

Flour or corn meal, bread, cereals, rice, potatoes, noodles.

Fresh fruits, fresh carrots, onions, or whatever is in season.

Eggs, cheese, bacon

Jam, peanut butter

Marshmallows, chocolate bars, cookies, crackers

Fresh or canned milk

### Available on 2 days' notice

Fresh meat or fish

Special vegetables or fruit

Rolls or special bread

### Available to order once in a week or two weeks

Chicken

Steak

Ham

Lamb, etc.

### TYPES OF OUTDOOR FOODS - by progressive steps

Here are listed some of the types of foods, cooked or uncooked, that may interest campcrafters. The first hike lunch, with no cooking to it, is the beginning place, and from there one may progress by easy stages, combining a lunch that is prepared at home with one thing to cook, and going on until all parts of the meal are prepared on the trail fire, or until a good portion of a morning may be spent in preparing a meal, such as a barbecue.

In general, a good way to progress in gaining cooking experience is in this order:

Hike lunches, no cooking, but emphasizing the amount, balance, variety and packing of the lunch.

Lunches brought by each person, supplemented by something cooked in a kettle for the whole group, such as soup, cocoa, a simple stew.

Things cooked in a large frying pan for a group, such as scrambled eggs or hamburgers.

Lunches supplemented by something cooked by each person in a small frying pan, such as an egg, a hamburger, a chop.

Lunches with one thing to cook, preferably something to toast on a stick, such as sandwiches, frankfurters, marshmallows, etc.

One pot meals, in which the main dish is nearly the entire meal.

Individual on-a-stick cooking (other than toasting) such as bread twists, kabobs, hamburger on a stick, etc.

Tin can cookery, or on-a-rock cookery for individuals.

Baking and planking.

Large group affairs, such as barbecues, imus, clambakes, bean holes, etc.

- - - - -

Cooking, fire building, and the making of fireplaces must go hand in hand! (See pages 49-58)

## HIKE LUNCHES

The amount of lunch will depend upon individual appetites. Good camp-crafting should soon help hikers to know how many sandwiches will satisfy their appetites, so there is nothing to bring home, or worse, to throw away.

It is a good idea to have an extra snack to save until mid-afternoon, for extra energy for the hike back to camp.

Sandwiches - Take from two to five. Vary kinds of filling, and if possible, kinds of bread. Use some dark bread; for variety make one sandwich with one slice of white and one of dark bread.

For fillings, have one sweet filling (jam), another meat (chopped ham), and a third, vegetable (lettuce). Moist fillings are better than dry; spread fillings to edges of bread, rather than all in the middle. Buttering both pieces of bread prevents filling from soaking into bread.

Substitutes for sandwiches: A roll stuffed with salad  
A hard-boiled or devilled egg  
A good-sized piece of cheese  
A paper cup of salad (not too moist)  
Crackers, rye crisp or triscuit (watch  
out for fillings that make them soggy)

Fruit - fresh fruit, especially the kind that will quench thirst - oranges, peaches, pears, tangerines or grapes.

- dried fruit, raisins, prunes, apricots or figs. A good handful makes a good portion.

Raw Vegetables - These help provide moisture and add freshness to the lunch. Carrots, scraped and cut in long strips, celery or radishes are good. Lettuce carries best if washed, dried and wrapped in wax paper, and inserted in the salad or sandwiches on the spot. Tomatoes carried whole, and sliced just before eating prevent soggy sandwiches. A whole or half tomato to eat, as is, is a fine addition.

Something Sweet but not too sweet. Plain cake, cookies, a chocolate bar, maple sugar, a few nuts, or a few pieces of candy.

Milk, if possible; if it is hard to carry and to keep cool, have it before starting out, or on return, and depend on juicy fruit and a not-too-sweet lunch to relieve thirst. A fruit punch is refreshing, if it can be kept cool; it has little food value, unless made with fresh fruit. Tomato or fruit juices are good.

As for water - watch out for drinking it "just anywhere"; take it with you from camp if you are not absolutely sure of the supply you may want to use on the hike.

A surprise is fun to find in lunches that are packed by the campers. Slip in a candy bar, an extra cookie or two, or a handful of nuts after the lunches are packed.



### Avoid foods that --

- Are sticky, or will get soft in heat, like molasses candy, or chocolate in extreme heat.
- Are very rich or soft, like some frostings.
- Are apt to get soggy, as pie or crackers with cheese spread.
- Do not "carry" well, in pocket or pack, like cream puffs, or lemon pie!
- Have little food value, compared to the size or weight, like fresh grapefruit, or bottled drinks.
- Should be kept cool, and will taste flat when warm, like bottled drinks.

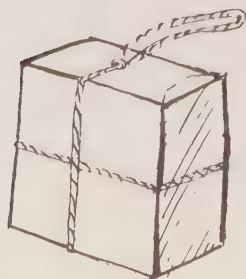
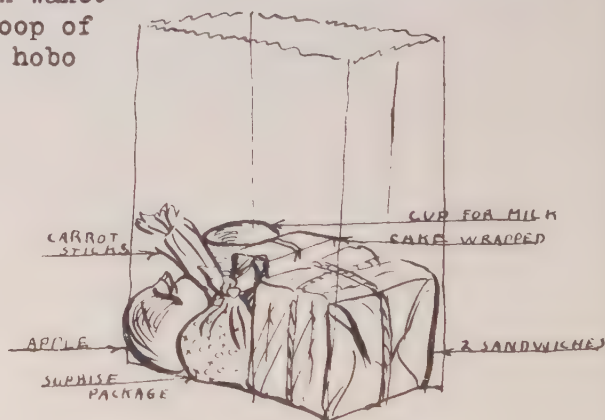
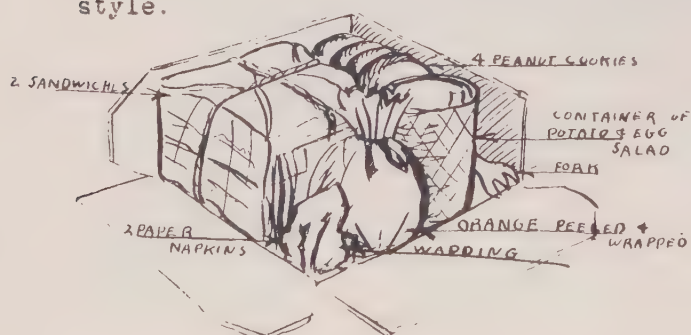
### PACKING HIKE LUNCHES

When you have decided what to have, the wrapping and packing should be considered. Waxed paper and paper napkins are great boons to hike lunches. A bread wrapper makes a good lunch wrapping.

Pack lunches in individual small boxes, like candy boxes, preferably cardboard, or in paper bags. These can then be burned after lunch, and need not be carried back.

Lunches are often packed as "nosebag" or "poke" lunches, meaning that the lunch for one person is placed in a bag, and carried by the person in a bandana, or tied to the belt. (Can you guess why they are called either name?) This is an excellent way to pack for a group leaving camp; even when something to cook is included, the lunch can be packed as a "poke" lunch.

In packing, use plenty of waxed paper. Pack heaviest items in bottom of bag. Wedge paper napkins in between items, so there is no room for shifting. Prepare vegetables beforehand, and wrap in waxed paper. Tie package securely, leaving a loop of string to tie to belt, or tie in bandana, hobo style.



## PLANNING OUTDOOR MEALS

The ingredients of outdoor meals are very similar to those for meals served at home, as far as need for balance and variety goes. The amount may be different, for outdoor appetites are keen, and the way of cooking will need to be considered.

For beginners, it is well to plan only one or two things to be cooked in a meal, supplementing the meal with sandwiches, or salads or fruits. With very inexperienced cooks, it is well to be sure that there is enough food, that can be eaten without cooking it, to satisfy appetites.

Since patience in waiting for the fire to burn to coals, or in cooking a piece of food slowly, is often vital to good cooking, some counselors plan to have something like a sandwich to be eaten while waiting for food to cook, so that those first pangs of hunger are appeased, and the group is more willing to wait to "do it right."

Canned goods are especially good for beginners in outdoor cooking, especially if used at the forest kitchen near the tents. The extra weight is a drawback for use on long hikes, although articles like canned milk may be easier to carry than fresh milk, if water is available at the camping site. Canned milk, concentrated soups, dried or powdered foods are good. Prepared mixtures such as pancake flour are good to eliminate carrying many little bits of ingredients, but it is a better plan to have the campers mix the dry ingredients before starting out, so that they learn the whole job of making the biscuits, or whatever it may be.

### Planning Menus

Simple meals are best. Choose the main item that will be cooked, and plan the rest of the meal around that. It will be the counselor's job to guide the group in planning a well-balanced meal.

For <u>one meal</u> , include:	In the meals <u>for a day</u> , include:
An egg, meat, fish, or piece of cheese	At least a pint of milk (for drinking and cooking)
Milk, if possible (for drinking and cooking)	Fruit of some kind, twice
Fruit - of some kind	Cereals or bread, preferably dark
At least one vegetable (except for breakfast)	Two or more vegetables, one of which should be green, leafy, or uncooked
	A potato, in addition to other vegetable
	A small portion of meat, cheese, fish, egg, dried beans or peas

## General Suggestions for Meals

- BREAKFAST:** Fresh or cooked fruit  
 Hot or cold cereal  
 (Pancakes or bacon or eggs - OR  
 (Toast and bacon or eggs - OR  
 (French toast or biscuits  
 Honey, jam or syrup as needed  
 Cocoa or milk
- DINNER:** Rice, potatoes, macaroni, noodles or spaghetti  
 Vegetables - one cooked and one raw  
 Meat, fish, eggs or cheese  
 Dessert to balance: Use fruit with a heavy meal;  
                   plan a light meal if you want to cook dough-  
                   boys or shortcake, etc.  
 Milk
- LUNCH OR  
 SUPPER:** (Plan this with heavier meal of day in mind; make  
                   it light if dinner has been, or will be, heavy.)
- One pot dishes, salads, sandwiches, individual  
 stick cooking, soups  
 Raw vegetable or salad  
 Bread and butter or toast or biscuits  
 Dessert, as for dinner  
 Milk or cocoa

## TYPES OF OUTDOOR COOKING

Here are various types of cooking, and little helps to make them successful.

Toasting - "to brown by heat." Best done over good coals; patience in waiting for the fire to burn to coals is its own reward! A good camper after toasts his bread or marshmallows golden brown, evenly done on all sides. He doesn't say he "likes it burned" just because he is not skillful enough to do a good job.

When a flaming fire must be used, hold the food to one side of the flames, instead of in or over them, or the food will be smoked instead of toasted.

Broiling - "to cook by direct exposure to heat." Broiling is a method used in cooking meat, especially tender cuts like chops or steak. It is usually done on a green stick, a green stick broiler, or on a wire rack or broiler.

Broiling is best done over coals; the food should be turned often, and cooked slowly. As in toasting, flames will smoke the food.



Pan Broiling is done in a pan; heat the pan first, put in meat, turn often, pouring off fat as it accumulates, keeping as dry as possible so meat does not fry.

Stewing or Boiling - tougher cuts of meat are good for stew; they have more flavor, but take longer to cook. For stews, meat should be browned quickly in fat, and simmered in water until tender. Generally speaking, the longer the cooking, the better the stew.

For boiling, have a cover on the pot to hasten the process; put the kettle on the fire as soon as it is going, to catch all the heat.

Frying - "to brown or sear in fat in a pan" is best done over a bed of coals, since flames are likely to lick into the pan. Generally, a small amount of fat is all that is necessary for frying. Draining fried food on a paper napkin helps to get rid of excess grease.

When frying bacon, onions, etc. for a one pot meal, fry in the bottom of the kettle to be used, and pour off the grease when the food is brown, adding other ingredients as needed.

Tin Can Stoves are often used for frying. These are best managed in pairs, so one camper can take care of the fire, while the other cooks.

On-a-Rock cooking is another kind of frying in which a flat stone is heated and used as a frying pan.

Baking - there are many ways of baking out of doors. One way is on the end of a green stick, as you do for a bread twist; this is a slower process than toasting, for the outside must not get cooked too quickly, or the inside will not be cooked.

Another way is in reflector ovens: they may be made from tin cans. Dutch ovens are also used for baking.

Planking is the art of cooking on a board, generally by reflected heat. It is used for meat and fish.

Non-Utensil Meals are those where you use no kettles or pans, but make any implements you need, like broilers or toasting sticks. This is a fine campcrafting kind of meal. Your jackknife is your best friend here!

One-Pot Meals are those where many ingredients make the main dish, like a chowder or stew. Everything is prepared in one kettle, and one needs only fruit or sweets to top off the meal.

Bean Holes, Imus and Clambakes are fireless cookers in the ground.

Barbecues are ways of roasting large pieces of meat, over coals; a special sauce is used for basting the meat.

PROGRESSIVE STEPS IN OUTDOOR COOKINGAdd Other Ideas HereSuggestions for the SIMPLEST THINGS to toast  
that might be included in poke lunches:

Sandwiches to be toasted. Cheese, meat,  
jelly, raisin bread.

Bread to be toasted; make the sandwiches  
on the spot.

Rolls spread with cheese spread, or just  
split and toasted.

Frankfurters (boil them beforehand to be  
sure they are cooked)

Desserts -

Marshmallows

\*Marguerites

\*Sommores

Suggestions of things to cook on a green  
stick, or a green stick broiler

Things listed as SIMPLEST THINGS, above  
Steak, bacon or ham, chops, etc.

\*Bread twists

\*Picner drumsticks

\*Kabobs

\*Angels-on-Horseback

Desserts -

\*Lotsmores

\*Mock Angel Food

Suggestions for things to cook in indivi-  
dual small frying pans (6-inch pan costs  
about \$.10), or on a tin can stove or a  
hot rock:

Anything that can be fried

Hamburgers

Frankfurters

Bacon (better to start this way than over  
an open fire on a stick)

Eggs fried or scrambled

Sandwiches, like cheese dreams

\*Pan cakes

Ham slices; try prepared ham for economy

Apple and sausages

Fish, meat or potato cakes

Chops, small pieces of meat like cube steak

\*Scrambled potatoes

\*Angels-on-Horseback

(See pages 73-76 for recipes of items \*starred)

Suggestions for One Pot DishesAdd Other Ideas Here

- \*Desert Fish
- \*Chile Con Carne
- \*Chowder
- \*Campfire Stew
- \*American Chop Suey
- \*Savory Beans

## Desserts cooked in a pot

- \*Chocolate Drops
- \*Candied Apples

Suggestions of Things to Bake

## In a Reflector Oven

- Ginger Cookies
- \*Cornflake Macaroons
- Corn Bread
- Biscuits

## Baked in the coals

- Potatoes
- \*Potatoes in tin cans
- \*Fish in a bag
- \*Roast Corn
- Little Pig Potatoes

## In a Bean Hole

- Stews
- Ham slices
- Baked beans
- Cooked cereal

## On a Plank

- Fish
- Steak
- Chops
- Liver

Suggestions of Beverages

- \*Cocoa
- \*Coffee
- Tea

(See pages 73-76 for recipes of items \*starred)



## USING WHAT IS ON HAND OR LEFT OVER

Sometimes a counselor is faced with using leftovers, or making something that is at hand seem just as intriguing to campers as their great desire for steak! Here is one camp counselor's list of possibilities - starting with what may be available. Add to it to make your own list.

- - - - -

### HAMBURG OR CHOPPED MEAT

- fry or broil
- \*pioneer drumsticks
- \*in almost any one-pot meal that calls for meat

### FRANKFURTERS

- broil, boil or fry
- cook in bread twist
- cooked, cut in pieces, and used in one-pot dishes, pea soup or potato salad

### BACON

- broil or fry
- cooked - cut in pieces and used in scrambled eggs, sandwiches, chowders, one-pot dishes
- \*Angels on Horseback
- in club sandwiches, with tomato, toast, etc.

### LEFT-OVER COOKED MEAT or canned meat or fish

- cold sliced
- chopped or sliced, in sandwiches
- chopped or cubed, in salads
- in one-pot dishes or chowders
- chopped, in stuffed peppers or hash or meat cakes
- \*chowder

### EGGS

- fried, boiled, scrambled, etc.
- baked in orange skins or potatoes
- hard boiled - in sandwiches, or plain, or stuffed, or in salads
- cold scrambled eggs make good sandwich filling
- \*scrambled potatoes

### Leftover COOKED VEGETABLES

#### Potatoes:

- fry or cream
- with egg, meat, bacon, etc. in salads
- \*scrambled potatoes
- mashed - in meat or potato cakes or hash

#### Other vegetables:

- in salads
- one-pot dishes
- in soups

### FLOUR

- \*pancakes
- \*bread twists
- biscuits, cornbread, gingerbread cookies, etc. in a reflector or tin can oven

### RICE OR SPAGHETTI

- as a vegetable instead of potato
- in soups and one-pot meals
- rice in puddings
- with raisins or dates as dessert
- in pancakes or meat cakes

### CANNED MILK

- \*in cocoa, or eggnog
- in soups or chowders
- in puddings
- in pancakes, etc.
- anywhere whole milk is used

### SUGAR

- fudge
- \*chocolate drops
- \*candied apples

A good Campcrafter is always making up new recipes - generally because of what is left over!

(See pages 73-76 for recipes of items \*starred)

(Serves 8)	(Frying pan)	(One-pot)
<u>Basic PANCAKE Recipe</u>		
3 cups flour 1 teaspoon salt 1½ tablespoons baking powder 1 or 2 eggs 2 cups milk 2 tablespoons melted fat grease for frying Mix dry ingredients, add eggs slightly beaten, then milk gradually, last of all melted fat. Butter should just pour from spoon. Have pan hot, and well greased. Pour spoonful on pan, cook until bubbles appear on top, then turn. The smaller, the easier to cook, for beginners. Try flipping, using individual pans. When using batter for a large group, give each camper a paper cup of batter. Variation: Add 2 cups blueberries, or cooked rice, or 2 teaspoons cinnamon and 2 tablespoons sugar.	frying pan - individual ones are good or tin pan stoves turners bowl or pan spoon	<u>CREAM SAUCE</u> 8 tablespoons butter or oleo or bacon drippings 8 tablespoons (1/2 cup) flour 1 teaspoon salt 4 cups milk Melt butter (or other fat) in bottom of kettle; add flour, stirring well, until smooth paste is formed, and mixture bubbles vigorously. Add cold milk, heat, stirring constantly, until thick and smooth. For beginners use double boiler made by two kettles, one inside the other; put boiling water in outside kettle. (Some experts say you cannot really cook outdoors until you can make a GOOD cream sauce over an open fire!)
<u>BREAD TWISTS OR DOUGHBOYS</u>		
(per person)	(On-a-stick)	Beverage
1/2 cup flour 1 teaspoon baking powder ) 1 teaspoon shortening ) pinch salt ) about 1/4 cup water small amount extra flour Mix dry ingredients in bag or cup; work in shortening with fingers. Add water slowly, until stiff dough is formed. Handle as little as possible to keep from getting tough. Make it stiff enough to hold together; add a little flour, if it gets too moist. (Only practice will tell you!) Heat stick; flour it; flour hands; put half of mixture on stick, winding like a ribbon, spirally down the stick, with space between twists, OR place over the end, squeezing gently into a long thin covering. Cook by holding about six inches away from coals at first, so inside will bake, then brown nearer coals. Turn continually. Will slip off stick easily when done. Stiff hole with bacon, jam, etc.	green stick, one end a little bigger than thumb; peeled 3 inches down cup or small paper bag <u>coals</u>	coffee pot bag of cheesecloth & string
<u>Basic CHOWDER Recipe</u>		
(per person)	(one-pot)	Beverage
1 slice fat bacon or 1 small square salt pork 1/8 onion to person 1/2 medium-sized potato (diced) 1/4 can corn, 1/4 pound fish, etc. salt and pepper 1 cup liquid (water, stock or milk) Cut bacon or pork and onions very small. Fry in bottom of kettle until brown. (Stir frequently to prevent burning. Pour off extra grease, if necessary.) Add corn, fish or meat, with a little water, as needed. Let cook slowly until fish or meat is cooked. Add diced potatoes about 1/2 hour before time for serving and cook until done. Season, and add milk just before serving, if using milk. Bring to a boiling point, but do not boil.	kettle jackknife ladle or spoon	<u>COCOA</u> 1 teaspoon cocoa 2 teaspoons sugar 1 cup milk, or equivalent: 1/2 cup evaporated milk and 1/2 cup water; or 4 tablespoons milk powder and 1 cup water A little extra water Mix cocoa and sugar with water in kettle, and cook to a smooth paste, letting it bubble vigorously. Add milk and stir all thoroughly together. Heat almost to a boil. Some add a pinch of salt. Beating with a whip prevents scum from forming.

- (per person) FISH IN A BAG (Non-Utensil)
- 1/4 - 1/3 lb. solid white fish per person (cod, haddock or any fillet good) heavy wax paper  
salt and pepper newspaper or small paper bags  
lemon butter or a small piece of butter\* good bed of coals
- Place piece of fish in a good-sized piece of wax paper; salt and pepper it, and add lemon butter or piece of butter. Wrap wax paper around fish, turning it on all sides. Then wrap well in bag or newspaper that has been soaked in water.
- Have a good bed of coals ready, and place the packet on top of the coals; leave for about 20-30 minutes, depending on size of fish, turning once. If paper becomes too dry, remove from fire, and wet again, then return to coals. Cooks by steaming.
- \*3 tablespoons melted butter with 1 tablespoon lemon juice
- (Serves 8) POTATOES BAKED IN TIN CAN (Baking)
- 8 medium-sized potatoes 2 - #10 tin cans, with wire handles\*  
heavy wax paper  
sand or dirt  
good bed of coals
- Scrub potatoes well, and wrap each in wax paper. Put a layer of sand or dirt in bottom of a can; then put in potatoes with sand or dirt in between so no potato touches another potato, or sides of the can. Pack sand or dirt well around the potatoes, and cover well. Wet the sand or dirt until a bit of it holds its shape when squeezed.
- Have a good hot bed of coals ready, and place the cans directly in the coals, piling coals around the sides. Leave for about an hour, keeping coals raked around the cans. (Time varies a little with size of potatoes; when the ones on top are done, they are all done.) Moisten sand occasionally, if it becomes too dry, adding water with a cup.
- \*Punch holes in each side of top of can, and cut in wire handles.
- (per person) ROAST CORN (Non-Utensil)
- 2-3 ears of green corn string  
salt and pepper GOOD bed of coals  
butter wire screening over coals  
for large number
- Peel ears, leaving husks on at bottom, and remove corn silk, then replace husks, covering ear, and tie around top. (Some people dip corn in salt water at this point.)
- Have a good bed of coals in trench or round fireplace, and place screening across logs or stones, just above coals. Place ears on screening. Turn often, until all sides are done. Strip ears, leaving husk off the end for a handle, add salt, pepper and better to taste; eat immediately. May also be done by standing ears upright at sides of fireplace, turning often. If you like the kernels brown, strip ears after they have steamed a while, and finish cooking by direct exposure to hear, turning as above.
- (per person) KABOBS (On-a-stick)
- 1/4 lb. round steak cut in small pieces, pointed green sticks  
trimmed of fat, about 1 inch square about size of little  
by 1/4 inch thick finger; peel down  
small onion peeled, and cut in slices three inches  
partially boiled potato, if desired, jackknife  
sliced 1/4 inch thick  
2 strips bacon, cut in squares  
2 rolls or sandwiches coals
- Place pieces of steak, onion, bacon and potato alternately on sticks, pushing down stick, and leaving a little space between pieces. Repeat in same order.
- Sear quickly all over by holding close to coals, then cook slowly a little away from coals, turning until done.
- For OYSTER BOBS - use oysters and pieces of bacon  
For LIVER BOBS - use small pieces of liver and pieces of bacon
- (8 persons) ANGELS ON HORSEBACK (On-a-stick)
- 16 one-inch squares American cheese (about 1 lb.) jackknives  
16 slices bacon or ham sliced thin 8 pointed green sticks  
16 buttered rolls or sandwiches 16 twig toothpicks
- Cook bacon or ham on sticks until partly done, not crisp. Wrap around a square of cheese, covering all sides, and securing with twig toothpicks. Broil on end of stick, over coals, until bacon or ham is well done, and cheese begins to melt. Pop into buttered rolls or bread, and eat at once.
- For inexperienced cooks - fry the bacon or ham in frying pan, and let canners finish cooking with cheese.
- Note: Cooking the bacon or ham first helps prevent the cheese from melting before the bacon is cooked.
- (8 persons) PIONEER DRUMSTICKS (On-a-stick)
- 2 lbs. chopped beef 8 green sticks about  
1 cup cornflakes, crumbled fine the size of thumb.  
2 eggs (optional) Peel thick end  
salt, pepper, onion, salt, if desired 3 inches.  
16 rolls or slices of bread
- Mix beef, seasonings, eggs and cornflakes together thoroughly. Make 16 portions.
- Wrap a portion around end of a stick, squeezing in place evenly. Make it long and thin, not a ball. Be sure there are no air spaces in it. (Watch out for big pieces of cornflake).
- Cook slowly over coals, turning frequently so all sides are evenly cooked. Twist slightly to take off stick. Serve in roll. Some prefer to roll the meat in crumbled cornflakes after placing it on the stick, to make a crust. Try it both ways!



(One-pot)

CAMP FIRE STEW

(Serves 8)

1½-2 pounds hamburger steak  
3 teaspoons fat  
1 large onion, peeled and diced  
2 cans CONCENTRATED vegetable soup  
(or 4 cans from which the liquid  
has been drained)  
salt and pepper

Make little balls of hamburger, adding seasoning. Fry with onions in frying pan, or in bottom of kettle, until onion is light brown, and balls are well browned all over. Pour off excess fat. Add vegetable soup, and enough water or soup stock to prevent sticking. Cover, and cook slowly until meat balls are cooked all through. (The longer, the better.)

Serve hot.

(One-pot)

SAVORY BEANS

(Serves 8)

6 frankfurters or sausages, or 1 lb.  
sausage meat  
1 can or 2 cups cooked corn  
2 cans or 4 cups baked beans  
1 medium-sized onion, peeled and chopped  
fine

Cut sausages in small pieces (or make small balls of meat), and fry with onion until brown. Pour off any excess fat.

Add corn and beans. Add a little water, if needed. Season to taste, and heat well, stirring to prevent sticking.

Add a little catsup if desired. Serve HOT.

(One-pot)

CHILE CON CARNE

(Serves 8)

4 tablespoons dripping  
About 8 tablespoons chopped onion  
2 tablespoons chile powder, if desired  
1½-2 pounds ground steak or left-over meat  
2 quarts canned tomatoes  
2 cans kidney beans  
salt

Fry onion in fat until light brown. Add meat, and cook until done. Add tomatoes and beans, and cook together. Season with chile powder and salt. Let it all simmer. Thicken with a little flour if needed. Add 2 tablespoons of Worcestershire sauce, if more seasoning is needed.

Note: Younger campers will probably like less seasoning. Add it carefully.

(One-pot)

AMERICAN CHOP SUEY

(Serves 8)

2 cans spaghetti and tomato sauce  
2 teaspoons fat  
3-4 onions (small), peeled and diced  
1-1½ lbs. hamburger steak  
green pepper if desired, cut small  
salt and pepper

Fry onions and pepper in fat until brown. Pour off excess fat. Add hamburger steak, and cook until well done, but not crisply brown. Add spaghetti and heat well. Season to taste. Serve hot.

Instead of canned spaghetti, use 1 pkge. macaroni and 1 can concentrated tomato soup. Cook macaroni in boiling water. Takes an extra kettle.

For variety: Use a little sausage meat with the hamburger; add some cooked celery

(One-pot)

SCRAMBLED POTATOES

(Serves 8)

8 medium-sized cold boiled potatoes, diced  
2 small onions, peeled and diced  
4 pieces bacon, cut in small pieces or  
small amount bacon fat  
8 eggs  
salt and pepper

Fry onions with bacon pieces, or in bacon fat until light brown.

Add potatoes, and fry until brown and crisp. Break eggs into mixture, stirring while it cooks; cook until eggs are set. Season well. Serve hot.

Add a little cheese or tomato catsup or both, if desired.

(One-pot)

DESERT FISH

(Serves 8)

2 lbs. salt pork, cut in 1/2 inch cubes  
4 cups cream sauce  
salt and pepper  
1 small onion, if desired, peeled and diced  
toast or crackers

Fry salt pork and onion until crisp and brown. Remove on a paper, and keep warm. Pour off all grease, except enough to make cream sauce, and make cream sauce in frying pan.

Put cubes of pork into sauce. Reheat and serve at once on toast or crackers.

(This recipe is reputed to have been a favorite with 49'ers in the Gold Rush. It is also used in Canada.)

(Serves 8)

CHOCOLATE DROPS

- 1 cup sugar
- 1/8 cup cocoa
- 1/2 cup milk
- 16-24 marshmallows

Make a fudge of sugar, cocoa and milk, stirring enough to keep from sticking. When fudge is cooked enough to make a soft ball in a cup of water, remove from fire. Place marshmallows on sticks, and dip into fudge, turning until well covered, but not too long. Twist in air, using wax paper squares to catch the drips. Eat when cool. The second round will be cooler, and will form a hard coating of fudge on the marshmallow.

(Variation: Make brown sugar fudge)

(Serves 8)

SOME-MORES

- 16 marshmallows (about 1/2 lb.)
- 32 graham crackers (about 1 large pkge.)
- 6 - 5¢ chocolate bars, the flat kind without nuts (break in thirds)

Make a sandwich of a piece of chocolate and two crackers. Toast a marshmallow golden brown, and well puffed. (SLOWLY over coals does it!) Put into the sandwich; press gently together, and eat. Tastes like "some more."

Variations: Use peanut butter instead of chocolate - "Robinson Crusoe".  
Use slices of apples instead of crackers - "apple some-mores."  
Use chocolate covered crackers, and no chocolate bars.  
Use a chocolate peppermint instead of milk chocolate.

(Serves 8)

CANDIED APPLES

- 1 1/2 lbs. sugar
- 6 tablespoons butter
- 1 small can Karo syrup
- 8 good-sized apples
- water in cup to test

Cook sugar, butter and syrup in kettle, stirring constantly. When syrup seems to pour heavily from spoon, test in cup of water, cooking until a small amount hardens in water.

Remove from fire, and cut apple on stick, and dip so that the apple is well-coated with syrup. Twirl in air until cool. If syrup seems to harden before all apples are dipped, heat again, or keep kettle in another kettle of hot water while dipping.

Warn camoers to keep hands away from drips - HOT!

(Serves 8)

Dessert  
(Reflector Oven)

COCOANUT MACAROONS

- 2 egg whites
- 1/2 cup sugar
- 1 cup shredded cocoanut
- 2 cups cornflakes
- 1/2 teaspoon vanilla
- 2 tablespoons water

Beat egg whites stiff, and fold in sugar and salt. Add cornflakes, cocoanut and water gradually, then add vanilla.

Drop by teaspoonfuls on greased pan, and bake 15-20 minutes. Makes about 24 macaroons.

(Serves 8)

Dessert  
(Uncooked)

FRUIT BALLS

- 1/2 cup raisins
- 18 dates (pitted)
- 18 dried apricots
- 18 dried prunes
- 1/4 cup nut meats
- 1 cup cocoanut
- honey

kettle  
food chopper, or bowl  
and knife

Chop or cut raisins, dates, apricots, prunes as fine as possible. Add chopped nut meats, and mix all together. Mix with honey until small balls can be formed, and will hold their shape. Roll in cocoanut. Should make 18 good-sized or 16 small balls.

(per person)

Dessert  
(on-a-stick)

MARGUERITES

- 2 marshmallows
- 2 saltines
- 2 nut meats (walnuts, pecans or large peanuts)

green sticks, split on  
thick end, about  
3 inches down

coal or reflector oven

Place a marshmallow on top of a saltine, and a nut meat on top of the marshmallow. Place all in the split green stick, and toast. Toast cracker side first, then marshmallow side. (May be baked in a reflector oven.)

Note: Good way to use stale saltines!

(per person)

Dessert  
(on-a-stick)

LOTSMORES

- 3 marshmallows
- 3 squares milk chocolate (as marked on five-cent bar)

split green stick  
jackknife

coals

Split a marshmallow thru middle. Insert square of chocolate. Put in split stick and toast. When marshmallow is toasted, chocolate with be melted inside.

Additional Recipes



## PACKING FOODS

Pack baskets, knapsacks, or kettles are generally used to carry food for outdoor meals. Kettles with bails on them can easily be used as containers.



Knapsack



Milk Pail



Pack Basket



Kettle

Pack heaviest things in the bottom of baskets or kettles. Pack so that there is no room for the various articles to shift around.

Wrap eggs in paper napkins, or carry them in an egg carton, or put them in the bag of flour, to carry them safely.

Waterproofed cotton bags are excellent for carrying food. A good campcrafter will make his own.

For the trail kitchen that keeps some supplies, there should be watertight containers; make them out of tin cans, neatly labeled with the name of contents.

---

## BOOKS TO HELP WITH OUTDOOR FOOD

Jack-Knife Cookery - James A. Wilder (Dutton, \$2.00; order from Girl Scouts, Catalog No. 23-311)

Trail Cookery for Girl Scouts and A Manual of Cooking for Boy Scouts - (The Kellogg Company, Battle Creek, Mich. - Free on request)

Cooking Over the Camp Fire - Forest Service, U.S. Dept. of Agriculture, (Free on request)

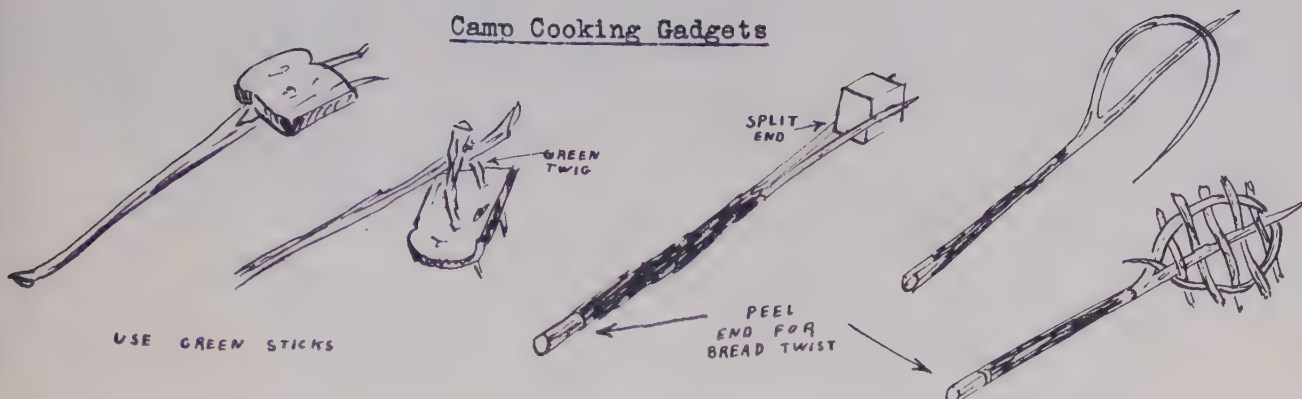
The Outdoor Book - Camp Fire Girls (Camp Fire Outfitting Co., New York, N. Y. - \$.60)

Camp Fires and Camp Cookery (out of print) and Handbook for Boys (\$.50) - (Boy Scouts of America)

Girl Scout Handbook (Girl Scouts, Catalog No. 20-101, \$1.00), Day Hikes (Girl Scouts, Catalog No. 20-603, \$.25), and Cooking Out-of-Doors - (Girl Scouts, Catalog No. 20-532, \$1.00)

Woodcraft - Bernard Mason (Barnes, \$3.50; order from Girl Scouts, Catalog No. 23-307)

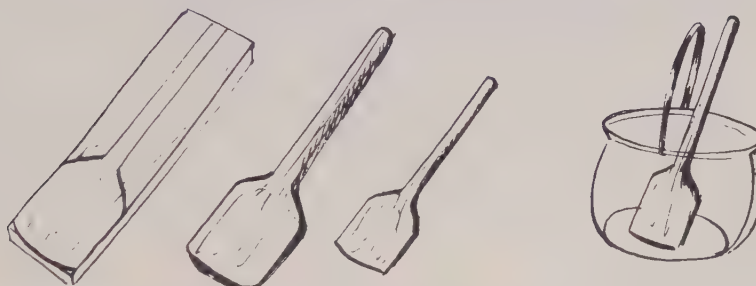
### Camp Cooking Gadgets



### Broilers and sticks for toasting



### Pot hooks, and holders



A cooking paddle - Make a wooden paddle for stirring stews, cocoa, or soup. Make long enough to extend outside your largest kettle, or make several sizes. Can be made from scrap lumber. Make a broad bottom surface; sandpaper smooth. The broad surface covers more of the bottom of the kettle, and is more useful than a pointed spoon.



A whip from a green twig



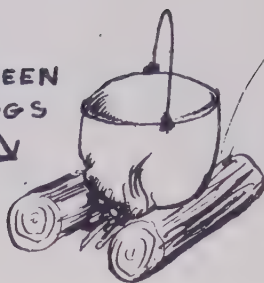
A bandana for a pot holder or a handy towel on your belt



A "table" near the fireplace for spoon or paddle

## CAMP COOKING HELPS

USE GREEN LOGS



RUB SOAP ON OUTSIDE FOR EASY CLEANING



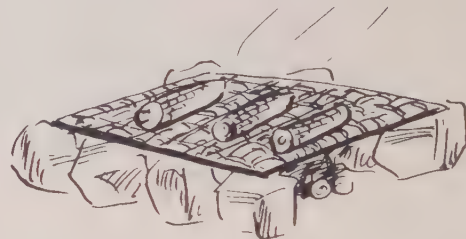
Fix your trench fireplace so that your kettles or pans rest easily without having to hold them. Cook with the wind at your back. Put kettle on as soon as you start the fire.



A round fireplace is good for toasting or broiling by several people at a time, or for a Dutch oven.



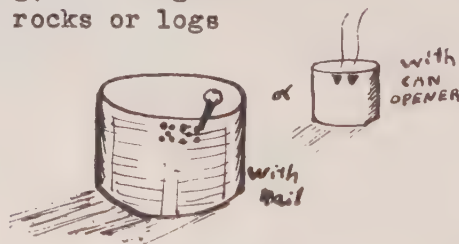
For reflector baking, build against a high back of rocks or logs



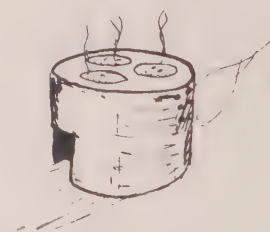
A wire screening over coals is good for roasting corn



Cut door.



Punch holes in opposite sides for draught.



Heat top and wipe off; then grease, and fry on top.

A TIN CAN STOVE conserves fuel. May be made from #10 cans, or from larger cracker or shortening tins.

(See page 55 for Fireplaces)





### PLACES CAMPERS LIVE IN - AND HOW TO TAKE CARE OF THEM

Getting acquainted with one's surroundings is one of the best ways to feel at home, so it is good for a group of campers to get an early introduction to their tents or cabins, and to the camp or unit in which they will be living for a few weeks. There will be much to learn and discuss about taking care of equipment, about where to find things, about the possibilities for "fixing things up," and so on. The first afternoon there may be a tour of the living quarters for the purpose of getting acquainted, and to make campers feel at home. This may include how to lower or raise shutters, how to roll the sides and flaps of tents, what to do with waste water, where to hang one's towel, and so forth. The tour will undoubtedly lead to possible places for trail kitchens, or if there is a kitchen already established, to view the equipment and to talk for a few minutes of possible cookery adventures to come. All along the trail there will be program and campcrafting possibilities cropping up, and the wise counselor will make mental notes of suggestions or signs of interest to follow up later. The tour, of course, will be geared to the age and experience of the campers, but even older boys and girls who have had little experience in camp will welcome an impersonal learning of first facts. When old campers can help conduct the tour, the better. In most instances the camping place should be equipped for living without frills, with no pressure of "must-be-mades" for the first night. It is good campcrafting for the group to talk over needs, improvements, or reconstruction, and let the discussion lead the way for much activity in the days to come.

At the first is the time to begin to establish the idea that there are certain things that a "good camper" does, since the sooner the group catches this point of view, the better for campcrafting. Every sport has its "way to do things," and camping is no exception. Campcrafters know that good camping means something beside slipshod living out of doors.

As time goes on, and the group becomes well-acquainted with its own living quarters, the campers may become interested in other types of shelters used out of doors. Perhaps some other section of the camp will present different shelters - lean-tos, cabins, tepees, tree houses, or other types of tents. A hike to see other parts of the camp, and the way other campers are living, may do much to stimulate campcrafting.

An overnight hike may be the goal for campers of some experience, and temporary shelters may be needed. Pup tents, poncho shelters or light hiking tents may be available to use for overnight trips. Less experienced campers will enjoy setting up such temporary shelters, and may get a great thrill out of sleeping in them, even though they are really near at hand. Camps with cabins would do well to be sure to supply such chances for sleeping under canvas.

In a camp where there are no tent floors to be considered, the group may like to think of changing the location of a tent or two. Some camps deliberately put up tents temporarily, hoping that the group will consider changing the placement of the tent. Campers have more respect for a tent when they have helped to take it down, fold it carefully and put it up again. Some of this same feeling comes from putting up pup tents or poncho shelters.

Sometimes camps make a special effort to supply types of tents such as umbrella tents, or tents that use a car for support, which might be used on family camping trips, so that campers can gain experience that will carry over to such occasions.

## GOOD "CAMP-KEEPING" IS PART OF CAMPCRAFTING

When campers live in CABINS, these things may be stressed:

Learning to care for whatever equipment is there - screens, curtains, shutters, etc. in sunny, wet or windy weather. How to roll and tie canvas screens, or how to fasten shutters so they are not hazards. (See Knots)

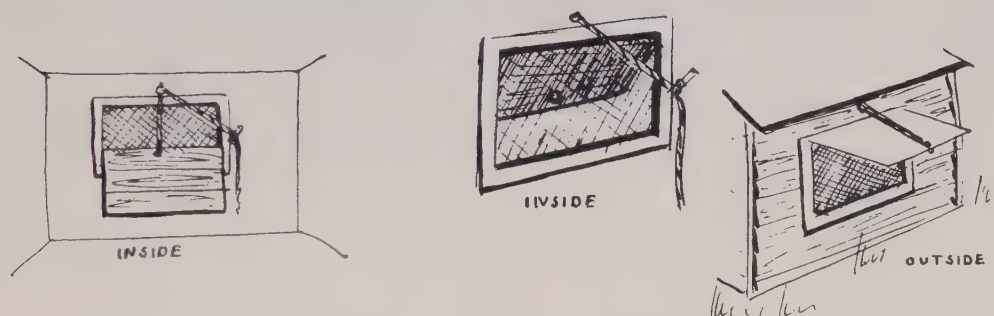
Learning how to put up shelves, etc. in a good craftsman manner. Making pegs of forked sticks instead of using nails.

In log cabins, learning about the chinking of the logs, how it was first done, and how it is kept in good repair.

Making drains to prevent standing water from drips from roofs.

Learning how to put up mosquito tents, if cabins are not screened.

Learning to make shoe racks, etc.



When campers live in TENTS, these things may be stressed:

Learning the type of tent, its various parts and uses of those parts.

Learning the knots used in erecting a tent.

Learning how to roll and tie flap or tent walls.

Learning how to take care of canvas - wet or dry, and something of the properties of canvas or duck.

Learning how to peg tent down to floor or floor pegs.

Learning how to ditch a tent, if there is no floor.

Learning how to put up mosquito tents or netting.

Learning how to make a tent look "trim."

Learning how to use pegs, if side rails are not used.



Some good things to know about CANVAS:

PINS in canvas make holes for the rain to come through, or are the beginning of rips.

RUNNING THE FINGER OR FOOT down the roof of the tent when it is wet will break the air bubbles that make the canvas waterproof, and - there will be a leak!

Canvas mildews when rolled up damp; after a rain, let the sides and flaps dry before rolling them again.

Field mice like to live in tents, too! Watch your tent flaps in a long spell of pleasant weather; unroll them, and let them air once in a while.

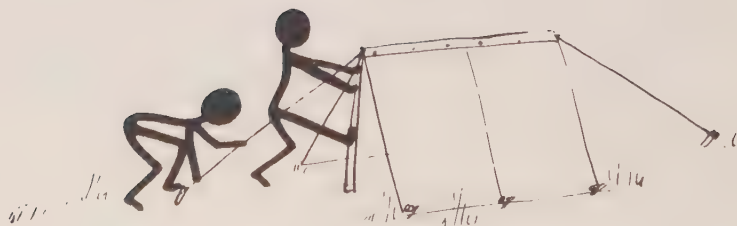
Canvas and ropes shrink when wet, so ropes should be loosened at the beginning of a storm, and tightened again afterwards. Pull ropes evenly on both sides to keep the tent looking trim.

The tent should fit loosely when dry, so the sides may be pegged down to floor or floor pegs easily.

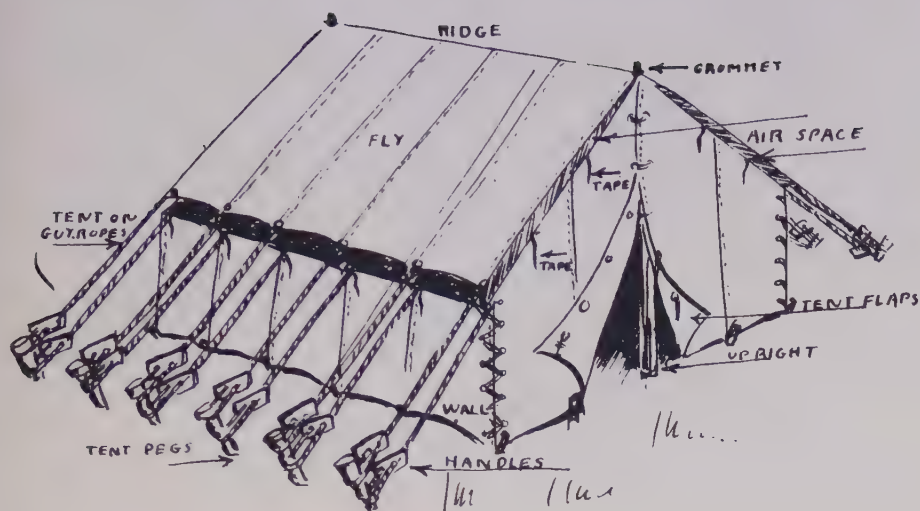
Nails tend to split tent poles - use lashings. Remove lashings or nails before folding tents away.

To fold tents: Be sure the canvas is dry. Let sun shine on it for two hours after dew has disappeared.

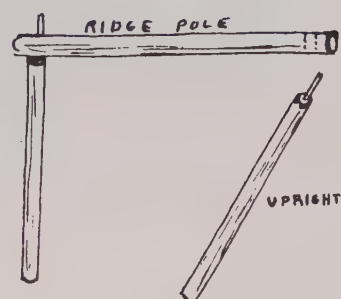
Fold on seams smoothly. Brush cobwebs, insects, dirt, etc. off canvas before folding.



## Wall Tents



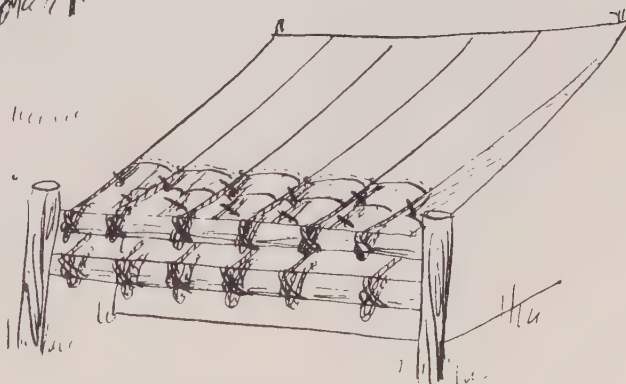
A WALL TENT with parts named.  
(Erected with tent pegs)

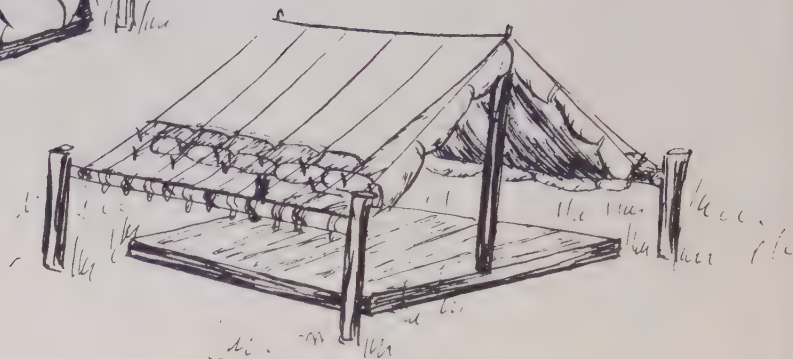
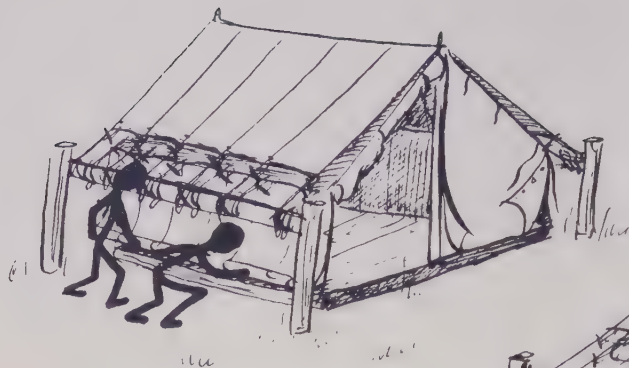


Tent poles



Wall tents are sometimes erected  
on side rails and with floors.





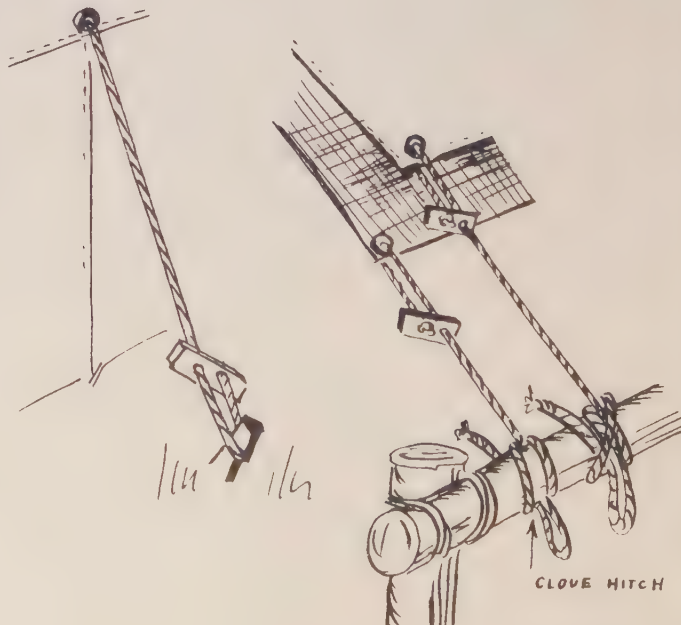
Ditch tents without floors,  
to keep rain from running  
across inside ground.

Tents are erected  
by pegs or on side-  
rails. The wooden  
handle is to tighten  
or loosen ropes.

#### To roll tent:

Unlace corner ropes, unhook ropes  
fastening tent to ground pegs.  
Roll sides, rolling the edge inside,  
away from the rollers.  
Tie tapes with square knots, close  
to roof of tent.  
Fold front flaps in on corners,  
roll inside and tie tapes with  
square knots.

(Add tapes at seams, if there are none)





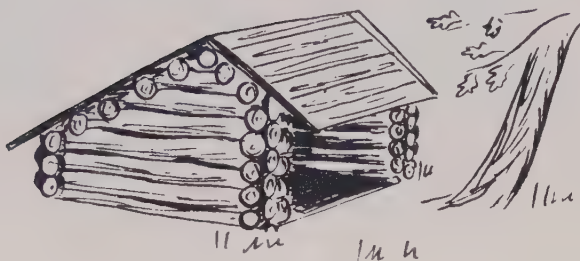
### Other Types of Shelter



An Indian Tepee

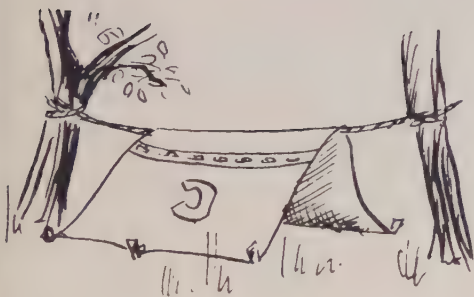


Conical Tent  
(erected with a center pole)

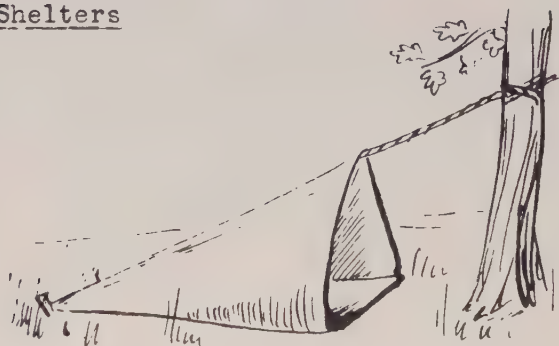


Adirondack Lean-to

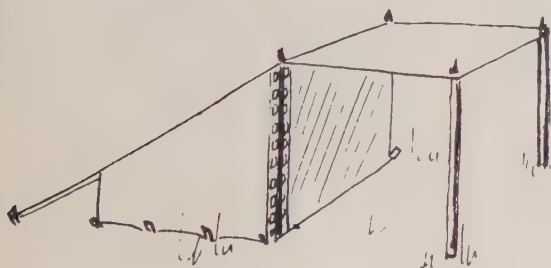
### Temporary Hike Shelters



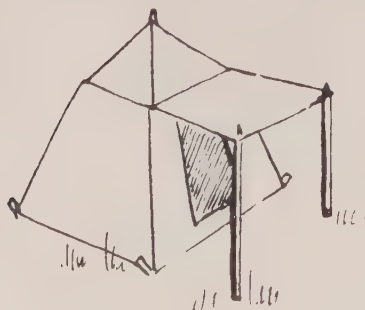
A Poncho Shelter



An Explorer's Tent

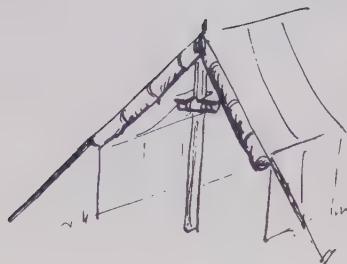


A Baker Type or Trail Tent

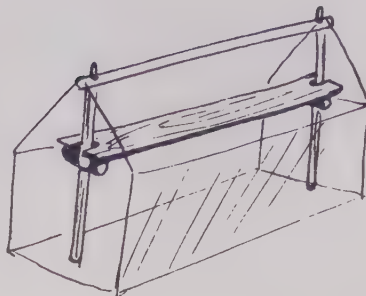


An Umbrella Tent

## Furnishings for Tent or Cabin



Shelf for a tent, for sweaters, bathrobes, etc.



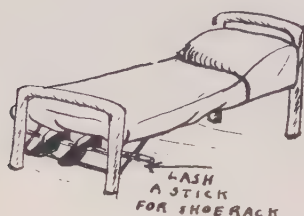
A clothes drier made from a small dead cedar tree



A box on casters for under the bed



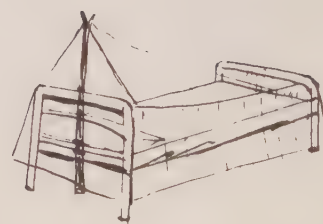
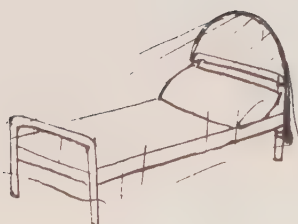
A "bureau" from an orange crate. You may not want a curtain in snake country.



A good camper covers his pillow and sheets with a dark blanket to keep them dry and clean.



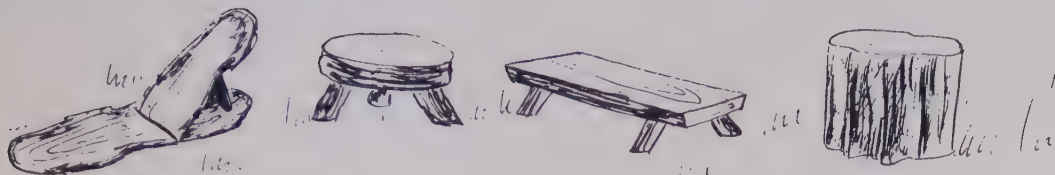
A shoe bag holds all odd bits of equipment in handy fashion.



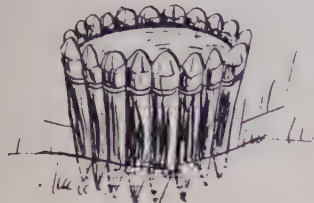
Mosquito Netting Frames

(See also Lashings on pages 35-36)

### Other "Furnishings"



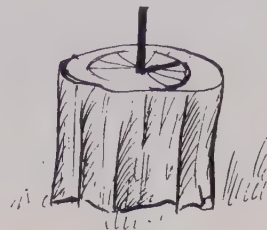
Seats and stools for tent or campfire circle



A wastebasket  
of lashed twigs



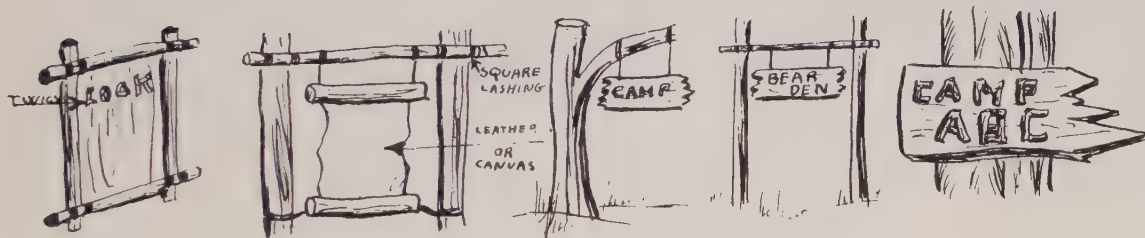
A broom made of twigs



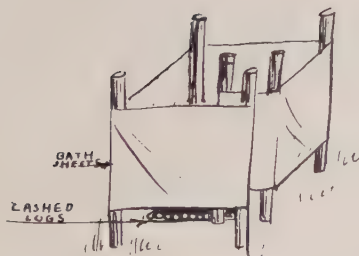
A sundial on  
a log

## MAIL ABC

Letters for signs of twigs or blocks of wood



Bulletin boards or signposts



Showers or bath shelters



Use this page for pictures of "Furnishings"



### WHEN CAMPCRAFTERS GO HIKING

There is always plenty to do around camp - plenty that has not yet been discovered, but mention a hike and there is immediate response! There is a lure to a distant camping spot, and a desire to see what lies just over the hill, or on the other side of the lake, or even at the remote corners of the campsite.

A simple little hike may be the beginning of a lifetime hobby in tramp-ing, and because a hiker may grow to be a mountain climber of the future, it is well to begin hikes so that campers have fun, and learn the best ways of being equipped, and to plan so that the distances covered grow in relation to the hikers' endurance. A shoe that pinches, a climb that exhausts, a pace that overtaxes, a pack that grows too heavy before the trail's end - all these may spoil the sport of hiking for inexperienced or untrained campers, and the counselor's job is to guide plans and to train campers to leave bigger and better hikes just ahead.

Hikes may be planned for many reasons - just for the fun of walking, of stretching one's legs, to see a sunrise from the top of a hill, or the sun set from across the lake, to go to see Farmer Brown's chickens and cows, or to see some point of historical interest. There may be nature "snoops" or ex-plorations, or sketching or photography trips, or wading excursions to get acquainted with the "campers" that live in the pond. Hikes may progress from short hikes to all-day hikes, then on to hikes of two or three days or longer,

as campers grow in experience. Overnight hikes call for previous experience in outdoor cooking, and in camping, and they should be preceded by plenty of cook-outs and shorter hikes.

When a group begins to talk about a hike, the counselor begins to build for that future mountain climber! Preparations should be talked over by the campers, and everything from what is to be worn or carried to where the destination may be, should be planned informally, or in great detail for extensive trips.

Here are some suggestions:

What to Wear - clothing that will protect from whatever weather may be expected - rain, heat, wind or cold. Shoes and socks to protect feet and legs from stones, rough trails, briars, or whatever may be encountered.

What to Carry - equipment that will serve the needs of the occasion, kettles for cooking, knives for green sticks, ponchos or pup tents, "sit-upons" for damp ground. A good hiker travels LIGHT, but carries what he will really need to be comfortable. What to eat will have a bearing on what is carried. Each hiker should wear his own cup on belt, and carry his own knapsack or hike kit.

Along with what you carry will come the problem of how to carry. Demonstrations of making blanket rolls, or of how to pack a knapsack will be in order. For young or inexperienced campers, let each carry a light knapsack, and have the blankets and other equipment transported, until the group become hikers of the first order. Blanket rolls should be well made, even for a truck ride!

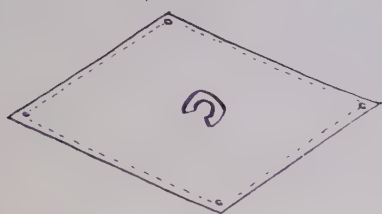
Where to Go - planning routes and destinations may be part of the fun. Try making or following maps and trails, or going cross country by compass. Secret order hikes are good, too. Try to come back to camp a different way. Use foot trails in public forests or parks, when they are near camp; introduce campers to future tramping possibilities.

On the Way - teach respect for private property, careful use of public facilities. Train for observation on the way; talk over what you have seen while resting or around the campfire. Take time to look at a view, or to watch a bird. Talk over "trail conduct" before the hike begins. Agree on what you will do when you meet a car on the highway, or if you go thru a village or town. Put the shortest legs in the front of the line. If the group is large, divide it, and let the long-legged hikers go ahead with a counselor, setting their own pace. Rest often enough to keep in good condition. Leave the lunch spot or camping site better than you found it. Burn or bury rubbish. Flatten cans before burying.

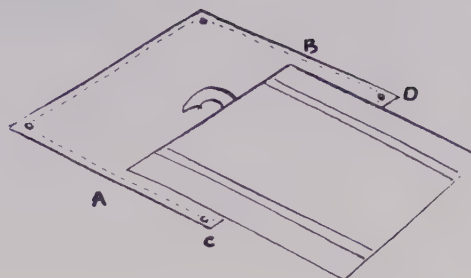
Back at Camp - cleaning up is part of the hike. Good campcrafters take care of milk cans, extra food, kettles and cups, and put them away in good condition in the proper place.



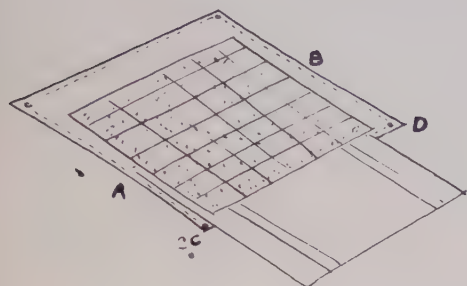
### To Make a Blanket Roll



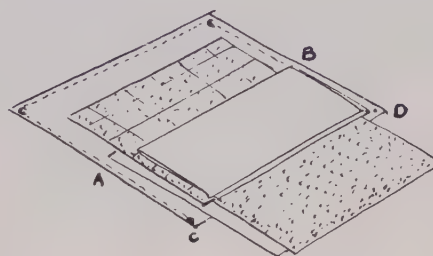
1. Place poncho flat on ground.



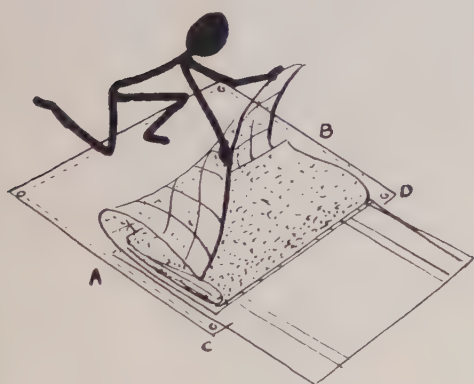
2. Place first blanket with one edge down center of poncho. (A-B)



3. Place second blanket with one edge at middle of first blanket. (A-D)

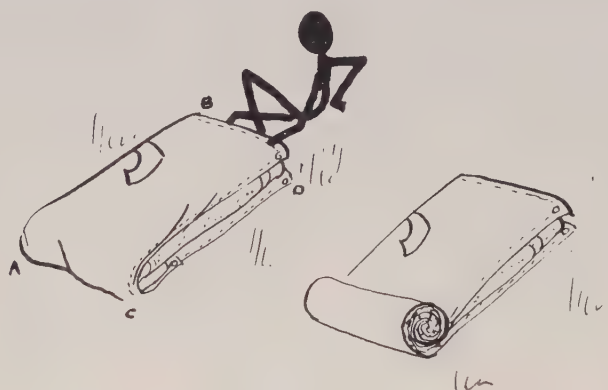


4. Alternate blankets in same way, until all are down. Fold sheet or sleeping blanket in half, and place in middle (A-B-C-D)



5. Starting with last blanket you put down, fold blankets alternating in reverse order, until all are over middle. (A-B-C-D)

Pin with blanket pins at bottom, if poncho does not snap together.



6. Fold poncho over. Snap together, if there are snaps on bottom and side.

7. Roll from bottom.

See page 27 for knots to tie.

Wriggle down from the top, getting in the middle of the sleeping blanket or sheet.

Use same principle for envelope bed without poncho.

### A CAMPCRAFTERS' TOURNAMENT

A campcrafting tournament or meet gives campers a chance to test their skills, and can be lots of fun, too. This is a fine project for a group of older campers to plan and conduct for the rest of the camp. In an all-summer camp, progressive meets might be held at intervals to encourage continued practice in skills. Plan several events, and call for a team or an individual from each tent, unit or small camp to take part in one contest. Plan enough events so that every one who wants to has a chance to compete, and be sure that the inexperienced campcrafters have a chance for fun as well as the crack woodchoppers or firebuilders. Score points as in a track meet - five points for first place, three for second, one for third, or some similar way. Let the points score for the team. "Medals" made of tin can tops or small slabs of whittled wood suitably marked are fun to present with a flourish at the end.

Here are a few possible events: (Conduct on dirt or sand, of course!)

Water boiling contest. Have a #10 tin can, a spoonful of soap powder, a quart of water for each contestant. On a signal let each build a fire of materials he has brought with him, including a crane or stones for a fireplace. First pot to boil over wins. The soap powder just adds to the excitement by providing suds to foam over the top of the can!

String burning. Erect a string about a foot and a half above the ground, held by stakes that divide the string into equal spaces about three feet long. Assign each contestant to a space. On signal contestants build fires of materials they have brought with them, or that they collect on the spot, and light fires. First string to burn through wins.

Making shavings. Give each contestant a piece of wood, such as soft pine, about twelve inches by an inch square. (Match sticks) On signal each contestant starts to make shavings or a fuzz stick with his own knife. After an agreed period of time (say three to five minutes) all stop, and piles of shavings are judged to see who has the longest shaving, the curliest shaving, the biggest pile, etc.

Splitting kindling. Give each contestant a log about twelve inches long, four or five inches in diameter. (Match them) Chopping blocks of logs should be provided, or should be brought by each contestant; axes are brought by each person. On signal each contestant splits log into a designated number of pieces of kindling. First to get number of pieces in a neat pile wins.

Log chopping. Provide a log for each contestant. (Match them) Each person brings his own axe. Logs may be anchored before contest begins, or that may be part of the contest. On signal, all start chopping; first one through his log wins.

Wood gathering. A team of three start on signal to gather wood, light a fire, and keep it burning for three minutes. One gets tinder, one kindling and one fuel, or one may get fireplace ready. Fire is lighted and timed for three minutes from the time the match is struck. Group is judged on (1) fireplace; (2) number of matches used; (3) how well they gauged amount of wood needed.

Lashing a wash stand. Each contestant brings three sticks and cord, a basin, soap and water (or these are provided). On signal, each starts to lash a tripod, finishes it off neatly, places basin in it, pours water in it, and starts to wash. First to start washing, with a good lashing, wins.

These are suggestions for very elementary events; plan others according to the skills that have been popular, or that the staff wants to push a little. Make the contests fun rather than deadly competitions.

A fine wind-up for such a day would be a community corn roast, bean hole or barbecue. Make it an Abe Lincoln or a Paul Bunyan day, and have a special campfire, with stories or stunts of old-time campcrafters. An exhibit of reflector biscuits or whittling or lashing will make the day a campcrafting "bee" or fair.

- - - - -

The Boy Scouts have long known the fun of contests such as these. Many of their publications will give other suggestions.

"Games and Recreational Methods" by Charles E. Smith (Dodd, Mead, \$3) has excellent help on similar contests.



### CORRELATING OTHER ACTIVITIES WITH CAMPCRAFT

Campcraft is made up of many activities, borrowed from all the known program fields. There is perhaps no other activity that reaches out in as many directions as does camping. The fields of nature, arts and crafts, music and literature all have contributed much to campcraft. In many cases, there is no way of differentiating one from the other, they are so closely linked together. Sometimes campcrafting may borrow from another field, and often it may serve to introduce a new activity to a camper. The foregoing chapters have dealt mainly with skills and techniques in campcraft, using much that leads into other fields. Some correlations are suggested on the following pages; since each of these subjects in itself might fill a book, it has been possible only to point up possibilities. It is hoped that this section will be of help to counselors who are especially responsible for these activities in camp, and that it will help these counselors to aid the tent or unit counselors in enriching campcrafting.

---



### NATURE IN CAMPCRAFTING

Probably the most important part of campcrafting is getting to know what is around you, and how it can serve you for usefulness or happiness - and that is NATURE! Nature and campcrafting cannot be separated, and all steps in campcrafting open up chances for learning something in nature. There are, too, good chances to point up nature for its own sake, and we need not think that it must always be disguised in some other activity.

The nature emphasis in campcrafting should utilize natural curiosity and desire to investigate - to provide a growing knowledge and understanding of the world around us, an appreciation of the glories of nature and a feeling of responsibility to help our natural resources through conservation. A real camper's desire to camp is based on a general love and appreciation of the out of doors, and a good camper learns to build fires so that there is no danger of forest fires, or cut wood so that there is no waste or injury to standing timber. He learns what is plentiful and what is rare in a given locality, and he is frugal with what is plentiful, and protects what is rare.

Any camp counselor should be at least interested in nature, even though he or she "doesn't know a thing about it." The learning of nature cannot be kept for classes from ten to eleven, but must start any moment - when curiosity is aroused, or a need arises. It is assumed that any one who is a counselor can capitalize on the first signs of interest in the world around a camper, and can help campers take the first steps in general nature activities. In many camps there will be a special nature counselor who will be able to give advanced help

to campers who grow beyond the general steps. These pages do not deal with this specialized help, but rather with the activities that may go along with the living in the out of doors of campcrafting groups.

Here are some ways of linking nature with campcrafting -

Encourage getting acquainted with the "neighbors", the inhabitants of the animal, plant and mineral kingdoms that are all about the camp. Learn which are natives, and which immigrants to the site. Talk about them in casual conversation, taking it for granted that people are interested in their neighbors. Make it a simple getting acquainted rather than a formal study, and introduce the element of discovery, encouraging campers to widen their circle of acquaintance.

Making lists may stimulate this; some youngsters will like to make their own; others will enjoy a group enterprise; still others will never respond to list-collecting! (There will be some other way to interest them.)

Exhibits, bulletin boards, labels, announcements and "quests" all stimulate curiosity, especially if the information is brief, interesting and provokes real interest.



Unfriendly neighbors, as well as friendly ones, are to be found in nature, and it is far better to know these neighbors before you meet them! Knowing how to meet them will substi-

tute understanding and confidence for fear. If there are harmful neighbors on the site, be sure the campers have some degree of acquaintance with them, devoid of hysteria.



### Follow up casual interests evi-

denced by a camper or a group -  
in an ant hill, a bird's nest,  
drifting clouds, the chipmunk  
that holds a treasure hunt for  
crumbs in the kitchen, the  
mosquitoes that buzz at night,

or whatever it is that makes some one say "See that ---," or "Perhaps  
it's a ---," or "Let's look a minute ---." If living out of doors  
is the idea of the camp, there will be time to stop and look and  
marvel, and it will not be a "nature class."

When using wood - know types of woods that are abundant on the site, and  
the woods best used for fires of various kinds - for construction, for  
making whistles or fishing poles, for whittling, or for green sticks  
for cooking. Campcrafters like to puzzle over the "why" of different  
woods - WHY hard woods make better coals; WHY you can make a whistle  
from willow, but have a hard time with pine; WHY you find straighter  
saplings in a thick grove; WHY green wood doesn't burn as well as  
seasoned wood ---

Along with knowing the woods will come the consideration of what  
to cut, and how to cut it for fuel, for saplings for a lean-to, or  
for cooking broilers. This is, of course, a part of conservation, and  
may well lead to planting trees for shade or firewood, or splints for  
packbaskets in years to come, or to pruning dead branches or protrud-  
ing roots for safety as well as beauty and longer life to trees.

Choosing stones for fireplaces may be the beginning of an interest in  
rocks. For cooking fireplaces, a knowledge of the kinds of stones



that can be heated without fear of "explosions" may be necessary in some areas. A search for flat rocks may lead to discussions on the reasons certain rocks are found (or not found) in the camp. If there are fossils or crystals to be discovered in this way, a fascinating new world is right at hand.

Along with rocks for constructing will come the necessity for thinking about the kind of soil you find on your site, if you contemplate building drains or digging pits. Clay soil may be fine for experimenting with pottery, but will present a problem in drainage! Leaf mold, grass and peat moss will need to be reckoned with in building fireplaces - and there we are, right in the realm of forest fire prevention, and that brings us back to conservation again.

"Will it rain?" "Shall we take sweaters or rubbers?" - "When will it ever clear up?" --- that is everyday talk - WEATHER! Capitalize on an overworked topic with a weather bureau, or a more-than-casual noticing of the clouds and winds.

Rock, wildflower or fern gardens will open new doors of interest to



some campers, and will improve the camp site. The making of a fern basket or a terrarium will stress conservation, flower arrangement, appreciation, and may make use of lashing.

Utensils for living may be made from many natural things - shells, cocoanuts, gourds, wood or clay are just a few possibilities.

Construction of bird houses, turtle ponds, hutches for temporary abodes for rabbits or other animals may make good use of tool-craft or of lashings, as well as stimulate interest in neighbors.

Sketching, water coloring and photography and the use of natural objects for design will link nature with crafts, and may be help in recording discoveries for some campers.

Nature songs, poems and stories will be welcome additions to campfires and to rests-by-the-way on hikes, or rest hours in tents, and may be the beginning of real appreciation and understanding. Urge campers to write their own!

---

All these suggestions! And no help in how to do them! Sorry, but space is too limited for such an exhaustive subject. The books listed below give you the help you need. The three starred books are specially full of suggestions for activities for campcrafters.

\*Adventuring in Nature - Elizabeth Price (National Recreation Association, \$.60; order from Girl Scouts, Catalog No. 23-305)

\*Leader's Nature Guide - Marie E. Gaudette (Girl Scouts, Catalog No. 20-205, \$.35)

Book of Nature Hobbies - Ted Pettit (Order from Girl Scouts, Catalog No. 23-527, \$3.50)

Nature Magazine - (American Nature Association, 1214 Sixteenth Street, N.W., Washington 6, D.C., \$4.00 a year)

Handbook of Nature Study - Anna Botsford Comstock  
(Comstock Publishing Company, \$4.00)

Canadian Nature - a small magazine published five times a year,  
(Whittemore Publishing Co., Ltd., 177 Jarvis St.,  
Toronto, Ont., Canada - \$1.00 a year)





### SONGS FOR CAMPCRAFTERS

There will be many occasions when songs will just "make" the camcrafting adventure. It is difficult to imagine a campfire without songs, or a hike without its gay tune to help straggling feet cover the trail home, or a hard job without a rollicking round or shanty to speed the action. There will be gay tunes and quiet tunes, songs of nature and stories in songs to be acted out around the campfire; all through the day there will be times when a song will best give expression to the moment's mood.

All kinds of songs, of course, have their place in camp singing. Some songs, however, will be of real help to the counselor in putting across the campcrafter's way, and these are considered here. The list is long, but these few suggestions may serve as the beginning of a repertoire of out-of-door songs. Here are considered songs that help to increase one's appreciation and enjoyment of the out of doors; some of them tell of the people who have lived out of doors, some of them tell of the out of doors itself; some have to do with the day's living, as songs for reveille. Add to these the songs that are sung "just for fun," or other folk songs of many lands, or the songs which campers make themselves. The resources are unlimited!

Songs of people who have lived out of doors may include those of the gypsies, the cowboys, the Indians, the pioneers of covered wagons, fishermen or sailor songs, and Negro work songs. Some of these will fit especially well in certain parts of the country, because of local tradition or history.

The wider one's experience in the out of doors, the better he can appreciate the words of many of our folk songs; he sees again the places he has visited, recalls picture scenes spread before him, and the songs become his own. "Purple mountains' majesty" and "yonder green valleys" or "the murm'ring pines" take on new significance when one has lived under pines, or wandered in valleys, or viewed mountains from one's tent doorstep. Some songs of the out of doors awaken curiosity or interest, and lead the way to discoveries in nature; the echo songs, and "The Riddle" from Humperdinck's "Hansel and Gretel" are examples.

On the following pages are suggestions of some songs for campcrafting; they are listed from books that are inexpensive, so that any camp may have copies for campers' use. The numbers used on the next pages refer to these books:

1. SING TOGETHER - Girl Scouts, Catalog No. 20-196 - price \$ .20
2. THE DITTY BAG - compiled by Janet E. Tobitt.  
Order from Girl Scouts, Catalog  
No. 23-460 - price \$ .75
3. KEEP ON SINGING - Paull Pioneer Music Corporation,  
119 Fifth Ave., New York 10 - price \$ .35
4. SINGING AMERICA - National Recreation Association,  
315 Fourth Ave., New York 10 - price \$ .25
5. CONCORD SERIES #4 - E. C. Schirmer Co., Boston, Mass. - price \$1.25  
(This book with piano accompaniment - #14 - \$3.)

Other books that have good material are:

Botsford Collection of Folk Songs - Vols. 1-2-3, compiled  
by Florence Botsford. G. Schirmer Co., New York - price \$ .60 ea.

Songs We Sing - Hall & McCreary Co., Chicago, Ill. - price \$ .25

Sing High! Sing Low! - compiled by Mary A. Sanders.  
Order from Girl Scouts, Catalog No. 23-468 - price \$ .56

Our Songs (for Singers from Seven to Eleven) - compiled  
by Mary A. Sanders. Girl Scouts, Catalog No. 23-465 price \$ .30

SONGS OF THE OUT OF DOORS

(Add your own favorites!)

General

Tiritomba	3
*Deep in the Forest	5
Under the Greenwood Tree	5
A Song of Seasons	5

Flowers

A Riddle	5
----------	---

Spring

Spring Breezes	3
Longing for Spring	5

Moon

Lady Moon	4
High Moon	5

Animals - Insects

Frogs	3
Fireflies	5

Trees

Ash Grove	1,3
The Birch Tree	1,3
Old Hungarian Round	1
Autumn Song	5

Birds

The Merry Lark	1
Kookaburra	2

Water

*By the Clear Running Fountain	1
The Singing River	5

Echoes and Clouds

The Echo	5
Cloud Ships	5

(Numbers refer to books listed on page 103)

\*Good for Paddling Rhythm



Morning Songs for Reveille

Merrily, Merrily	1
The Sun Worshippers	2
Morning is Come	1
Hark! Hark, the Lark	2
Morning Comes Early	5
Morning Song	5
Early One Morning	5

Hiking Songs

The Foot Traveler	1
A-Roving	1
Gypsy Song	2
Ten Thousand Men	2
Hol-di-ri-dia	3
or Walking Song	4
Tiritomba	3
Over the Meadows	4

Night

Louisiana Lullaby	1
O'er the Quiet Meadow	5
Oh, How Lovely is the Evening	5
The Golden Day is Dying	5
or At Sunset	4

Campfire Lighting Songs

Rise up, O Flame!	1
-------------------	---

Graces

Wayfarer's Grace	2
God Has Created a New Day	2

Songs of Outdoor People

Gypsies -	
Gypsy Song	2
Zither and I	2
In the Golden Fire- light Dancing	5

## Seamen -

Donkey Riding	1
Fisherman's Evening Song	2
Volga Boatmen's Song	3
Shenandoah	4

## Cowboys -

Night Herding Song	1, 4
Old Chisholm Trail	4

## Others -

The Herdsman	1
John Peel	3

(Numbers refer to books listed on page 103)



### ARTS AND CRAFTS IN CAMPCRAFTING

Campcrafting may appear to be mainly utilitarian, with little chance for "art" as such to be included, but a glance past the first steps in all campcrafting activities will reveal many places where good arts and crafts are necessary to progression. Campcrafting consists of knowing what is in the out of doors, and how to make the best use of what is there, for one's living in and enjoyment of the out of doors. Good arts and crafts can do much to increase that enjoyment and to facilitate that living. The use of imagination, creativeness and appreciation of beauty that is around us, as well as of the craftsman's skill in the simpler arts, are very much a part of campcrafting. Campcrafting puts only one limitation on arts and crafts, and that is that they fit into an outdoor setting, and are those arts and crafts that can be made part of outdoor living, leaving other crafts to city activities, mainly because of lack of time to do EVERYTHING.

Good principles of art and craftsmanship should be applied in campcrafting, as anywhere else. Some of these may be using materials that are native, such as wood, and keeping it in its natural loveliness, rather than painting it; creating what is made, each person using his own design, or plan of work, as in making equipment; learning to respect and care for tools, even when they are handmade; using flowers, trees or birds for designs.

"Making things", from a gadget to a carved book cover, will be everyday parts of campcrafting, and as with nature, any camp counselor should be interested, even if he may not be skilled. Many a good campcrafting

experience will begin with the need or desire to make a piece of equipment, to record a trip, to make a more finished lashing; and counselors will need to be on the alert to make "making something" a real craft. Campcrafting arts and crafts may be carried on in the small unit or camp; there may be whittling during campfire, or the making of a pack basket for a trip, or sketching during the rest hour of a hike. Help may be available from a general crafts counselor, but it will be too late to wait for a craft class to capitalize on a sudden showing of interest -- every one must be on the lookout for chances to do a good craft job.

Here are a few suggestions of ways of bringing arts and crafts into campcrafting:

Encourage the use of hands and creativeness at every step. This book is filled with suggestions for crafts; let each skill lead to something more advanced, and urge campers to improve, to change, to make things "on their own."

Encourage craftsmanship through finishing touches that raise an article out of the mediocre class. This may be useful in lashings, when trimmed ends of sticks or neatly hidden knots may make the article look well-made.

Encourage use of natural materials, well used, such as making a paper knife of cedar, and learning to like the feel and look of the natural wood.

Encourage appreciation of the skills of old-time craftsmen and respect for those who built well of wood and stone in the log cabins or the utensils of other days. New doors of interest are opened in considering the crafts of early settlers, who needed to make their wooden trenchers or their tools, or shingles for their roofs. Candles, wooden plates, bowls and eating utensils, metal equipment - all may become interesting



activities as campers read of early Americans, and find joy in making their own equipment as boys and girls of those early days did.

Here are some of the crafts that seem to lend themselves best to camp-crafting:

Sketching, or painting with water colors; this is a good hobby for the trail, and fine for recording in diaries or logs.

Weaving articles to wear or use in camp that can be made on small, portable looms, or on tubes, as Polish tube weaving. Link this with the out of doors by using natural dyes for colors.

Wood - from whittling a point on a green stick, through all the stages to wood carving. This is probably the first point of contact for the beginning campcrafter - and the trail leads far ahead. (See chapter on Toolcraft)

Leather - especially for the making of equipment, such as knife or axe cases or camera kits.

Basketry - for making equipment such as pack baskets, or waste baskets for tents, or storage baskets for trail kitchens.

Clay - for making utensils, or for modeling. Especially good when there is a clay bank on the site.

Metal for making utensils, for decorating wooden articles, etc.

Photography - this speaks for itself.

Architecture - the simplest principles of balance and strength can be worked into a table that needs bracing, or a shack that is being built.

- - - - -

These meager suggestions do not even start the list! There are many books to help.

Arts and Crafts with Inexpensive Materials - (Girl Scouts, Catalog No. 20-303, \$.50)

The Girl Scout Handbook (Catalog No. 20-101, \$1.00) has excellent reference lists for each type of craft in the Arts and Crafts section.

The National Recreation Association, 315 Fourth Avenue, New York 10, has mimeographed sheets and printed material at small cost. Write for list.



### CAMPCRAFTING IN STORY

Campcrafting is REAL! It is no land of make-believe, for everything that is a part of campcrafting has been a part of the living of earlier days. While boys and girls of today do not need to depend upon campcrafting as their only way of living, they may turn to the campcrafting way to find adventure, romance and the thrills of out-of-door life, and a basis for their camp living. The Indians, the Pilgrims, the scouts and early settlers of the Northwest Territory, the ploneers in covered wagons, the 49'ers, and the gypsies of all ages are the real campcrafters of days gone by, and the stories of the ways in which they lived form the background of campcrafting. These stories are tales to read around the campfire, or during a rest hour - tales to tell wherever campcrafters gather for good fellowship.

There is adventure a-plenty in these stories, of course, but the campcrafting counselor may be looking for something besides adventure to help make those ways of living real to his campers. Many of the books about these people who lived simply in the early days tell the story of how they lived, how they cooked their food, made their clothes, and fashioned their utensils from wood or metal. They tell also of the activities of boys and girls, of the games they played, and of how they helped to settle a log cabin in the deep woods or to drive a covered wagon westward.

There is a great wealth of material that has been written for boys and girls on these subjects. A trip to any children's library will show how many books of this type are available. If there is a teachers' room in the library

system, the books may all be gathered together in one section under titles such as "Frontier Days," "Early Americans," "Pioneers," "Covered Wagon Days," and so on. Reading lists for teachers give similar classifications for various ages or grades.

A counselor may well investigate the possibilities of the local library before going to camp. Often a summer loan of books for camps can be arranged, and a supply of tales of early campcrafters may well be included in such a loan.

Nature legends, stories of crafts, and tales of the camping of modern boys and girls will all be good for story telling. All stories, of course, have a place around a campfire, but here are considered only a few that tell a tale of campcrafters and campcrafting ways.

### STORIES

Becky Landers-Frontier Warrior - C. L. Skinner (Macmillan Co.) An interesting book for girls, telling of Kentucky in the time of Daniel Boone.

The Cabin at the Trail's End - Sheba Hargreave (Harper Bros.) A story of Oregon pioneer life.

Daniel Boone, Wilderness Scout - Stewart Edward White (Doubleday).

Grasshopper Gold - Horace and Olive Barnett (Oxford Univ. Press). A story of a boy traveling by boat up the Missouri River, and of life in a pioneer cabin in Montana.

Homespun - Mrs. Allena Best (Lothrop). Story of New York State in the 1820's and 1830's. Tells of a couple who set out for Santa Fe in a Conestoga wagon.

Mighty Mountain - Archie Biens (Charles Scribner's Sons). Story of how one young American built a home at the end of the Oregon trail.

A Pilgrim Maid - M. A. Daggart (Doubleday Page and Co.) Story of the first winter of the colonists.

Wagon Train West - Rhoda Wilson (Thomas Crowell Co.) Story of a girl on a covered wagon train to Oregon.



Little House in the Big Woods - Laura Ingalls Wilder (Harper & Bros.) Story of a little girl in the woods of Wisconsin. Interesting tale of living in a log house. (Young) (One of a series of six - all good.)

Abe Lincoln Grows Up - Carl Sandburg (Harcourt Brace & Co.) Story of his babyhood, games and chores, things he used, until he was 19 years old.

A Story of Pioneers and Their Children - Meyers and Embree (Bobbs-Merrill Co.) Story of a pioneer family in a covered wagon, and in a log cabin. Describes articles for readers to make as they read, such as a covered wagon, a log cabin. Good projects for any group, though written for young readers.

## CRAFTS

Day in a Colonial Home - Della R. Prescott. (Jones, Marshall Co.) Has fine illustrations of utensils, and implements used in colonial days. Describes activities such as candle dipping.

When Antiques Were Young - Marion Nicholl Rawson (E. P. Dutton Co.) Story of early American customs, such as quilting and barn raising "bees," activities in schools, of boys, etc.

Candle Days - Marion Nicholl Rawson (Century Co.) The story of early American arts and implements. Has excellent material on utensils used in pioneer and colonial days.

Children of the Handcrafts - Carolyn Sherwin Bailey (Viking Press). Short stories of early crafts, seen through the eyes of children. "Whittling Johnny," "Basket Maker," "Covered Wagon Boy," are good for campcrafters.

Tops and Whistles - Carolyn Sherwin Bailey (Viking Press). Stories of early American toys, dramatically told.

## POETRY

There are so many good anthologies of nature and outdoor poems that it is hard to choose. The Nature Lover's Knapsack (compiled by E. O. Grover and published by the Crowell Co.) and The Gypsy Trail are two favorites of the author.

A Book of Americans - Rosemary and Stephen Benet (Farrar & Rinehart) and I Hear America Singing collected by Ruth Barnes (John C. Winston Co.) both have poems about campcrafters of old.

## DANCES

Part of the heritage of campcrafters are the dances of the early settlers. Two books from a long list:

Dances of our Pioneers by Grace L. Ryan (A. S. Barnes & Co.) Gives square, contra, circle and couple dances. Tells Victor records to use.

Square Dances of the Great Smoky Mountains - Kit 47, Cooperative Recreation Service, Delaware, Ohio. (\$.25)



Camping and Woodcraft - Horace Kephart (Macmillan, \$2.50; order from Girl Scouts, Catalog No. 23-302). This has long been the mainstay of campers. Though written to adults, and about more extensive camping than campcrafters undertake, it has much good basic material, and no library is complete without it as a reference.

Jack-Knife Cookery - James A. Wilder (Dutton, \$2.50; order from Girl Scouts, Catalog No. 23-311). This is a campcrafter's book from start to finish. Has much in it besides cookery.

Outdoor Activities for In-Town Groups (order from Girl Scouts, Catalog No. 23-313, \$.50). A packet of illustrated sheets.

Program Helps for Camp Leaders (order from Girl Scouts, Catalog No. 23-310, \$.50). A packet of illustrated sheets.

Woodcraft - Bernard Mason (Barnes, \$3.50; order from Girl Scouts, Catalog No. 23-307). Has excellent text and illustrations for basic campcrafting. Especially good for progressive steps. Has much material on Indian lore as well as woodcraft.

Charting the Counselor's Course, edited by Mary Northway (Longmans, Green, \$1.50). Not a book on campcrafting, but a fine book on counseling.

Girl Scouts (155 East 44th Street, New York 17) has several inexpensive booklets on outdoor activities. Especially helpful: Let's Go - Troop Camping! (Catalog No. 20-601, \$.50); Day Hikes (Catalog No. 20-603, \$.25); Cooking Out-of-Doors (Catalog No. 20-532, \$1.); the Girl Scout Handbook (1947 edition, Catalog No. 20-101, \$1.) which has excellent suggestions for activities in the nature and out-of-door sections; and The Trip Camp Book (Catalog No. 20-602, \$.75).

Boy Scouts of America (2 Park Avenue, New York 16) has excellent material on camping. See especially: Handbook for Boys (\$.50), merit badge pamphlets (\$.25 each): Camping, Conservation, Cooking, Hiking, Pathfinding, Stalking, and Nature subjects. Adventuring for Senior Scouts (\$1.25) has help on making equipment. Two other helpful books are Field Book for Boy Scouts (\$1.) and Explorer Manual (\$.75).

The National Recreation Association, 315 Fourth Avenue, New York 10, has a number of mimeographed and printed helps that lend themselves to campcrafting. Send for a catalog.

The United States Department of Agriculture, Forest Service, Washington, D.C., has much helpful information that is available free on request. Camping hints, fire prevention, cooking helps, and hints on what to do when lost in the woods are a few of topics covered.

State Departments of Forestry, or forestry colleges, have free material to help with conservation, fire prevention, use of public camping grounds, and the like. Worth investigating in your own state.

For progressive camping or tramping, get acquainted with the material published by outdoor organizations in your locality. The Youth Hostel Association, the Appalachian Mountain Club, the Adirondack Mountain Club are a few examples.









08-CEJ-175

